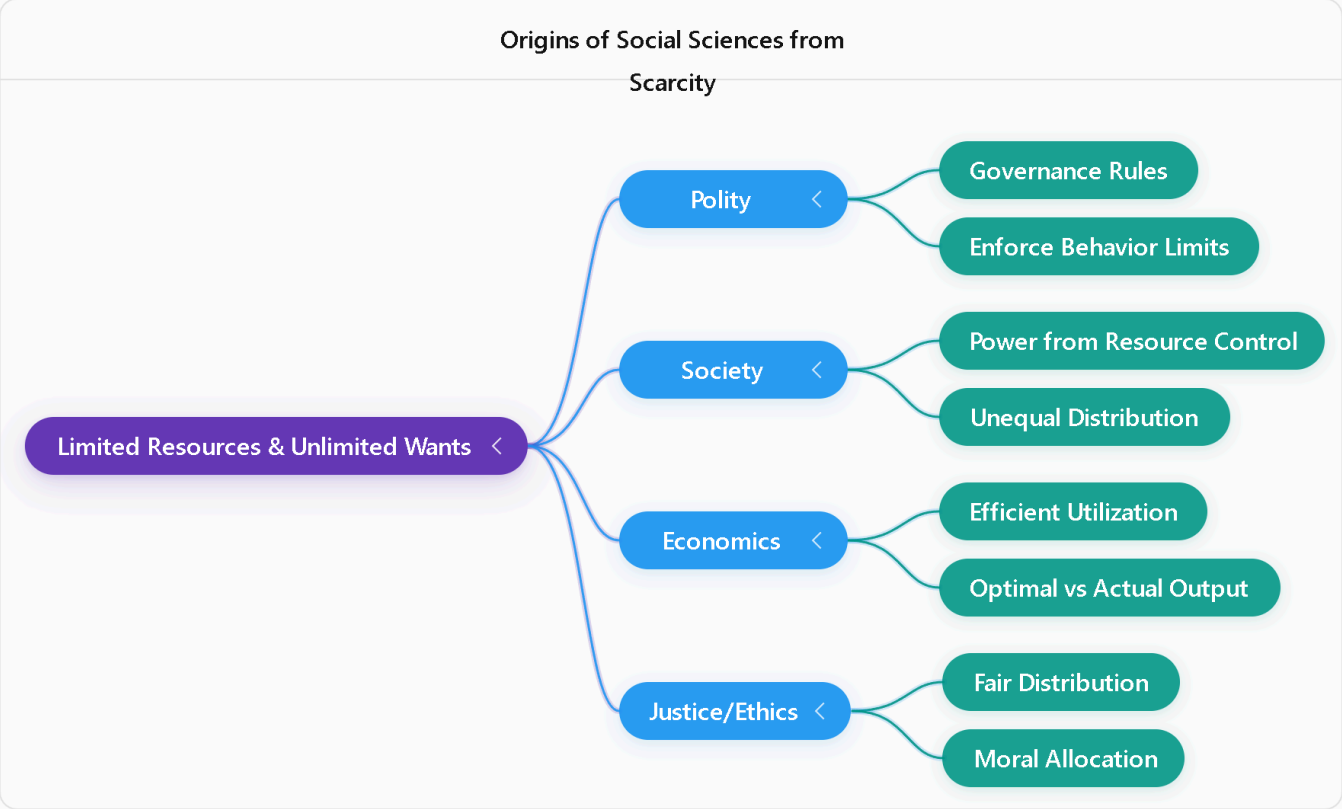
CLASS 0

Core Problem at the Heart of Economics

Economics originates from the fundamental problem of **limited resources** and **unlimited wants**. This scarcity issue—where resources constrain production while human desires exceed what can be made—forces choices, trade-offs, and sacrifices in society. Every subject addresses core problems; economics tackles how to allocate scarce resources amid competing desires. +3

- **Why this matters**: Without limits, no choices needed; abundance eliminates conflict. But reality demands decisions on what, how much, and for whom to produce.
- Resources like land, labor, water, seeds, fertilizers, and sunlight are all finite, leading to bounded output (e.g., maximum producible goods). 13:51
- Wants exceed this output, creating **conflicts** (e.g., one wants mangoes, another papayas, but only mango seeds available). 17:00



This problem births four social sciences: polity (rules), society (power structures), economics (efficiency), justice (fairness). +4

Understanding Limited Resources and Limiting Factors

All resources are limited (water, soil, sunlight, labor, capital), but some are **limiting resources**—those constraining production most severely among the scarce ones. Limiting means they dictate maximum output; others may be abundant relatively. 12:58 14:21

Agricultural Example:

- Inputs: Land, 10 workers, water, mango seeds, fertilizers, sunlight.
- All limited, but workers limit: They plant/water/fertilize only so many trees, capping mango yield. Seeds limit variety (no papaya). +3
- Result: Resources not just scarce, but **limiting in nature**, bounding total producible output (e.g., max 500 mangoes/year). 16:01

Resource	Limited?	Limiting in Example?	Why?
Land	Yes	Possibly	Fixed area for cultivation
Workers (10)	Yes	Yes	Limits planting/care scale 16:01
Seeds	Yes	Yes	Only mango; no alternatives 15:09
Water/Fertilizer	Yes	No/Maybe	Adequate if others bottleneck
Sunlight	Yes	No	Sufficient for land 14:48

Even perfect efficiency yields limited output due to bottlenecks. 26:27 Inefficiency widens the gap (e.g., produce 300 vs. potential 500). 26:55 27:26

Unlimited Wants as Conflicting and Unmet Desires

"Unlimited" ≠ infinite greed; means **conflicting wants** outnumber producible goods, leaving **unmet desires**. 16:31 17:00

Mango Society Example (100 people):

- 50 want mangoes, desiring 1000 total.
- Limiting resources allow max 500 producible. 17:55 18:23
- Even if all 50 served, only half-quantity met (500 vs. 1000).
- Conflicts: Everyone wants 10 mangoes, but scarcity forces sacrifice/choice (e.g., rationing). 18:53 19:20
- Trade-offs inevitable: Prioritize some wants, unmet others. 19:49

Wants conflict because multiple claims on same limited output; not all satisfiable simultaneously. Rich (e.g., Mukesh Ambani, Elon Musk) still want more—desire unbounded by status. 13:22

Economics: Measuring Efficiency in Resource Use

Economics assesses if limited resources are used **optimally** (max potential output) vs. **suboptimally** (actual lower output). Core question: Gap between "what can be produced" (efficient max) and "what is being produced" (current reality)? +3

- **Mango Example Revisited**:

Scenario	Potential Output	Actual Output	Efficiency?	Gap Reason
Max Efficient	500 mangoes	500	Optimal 26:27	N/A
Inefficient	500 potential	300	Suboptimal 26:55	Poor utilization
Worse	500 potential	200	Large Gap 29:21	Needs improvement steps (200→250→...→500)

Economics studies closing this gap: Optimal (efficient full use) vs. actual (suboptimal waste). 29:50 Unlike polity/society/justice, economics focuses on **production efficiency** from scarce resources. 25:00 25:31

Microeconomics vs. Macroeconomics

Both stem from scarcity, but differ in scope/impact:

- **Microeconomics**: Individual/small entity decisions using **own limited resources**. Bearer of consequences = decision-maker (self-accountable). +3
  - Example: Personal car/AC choice—your money, your loss/benefit. 48:41 49:08

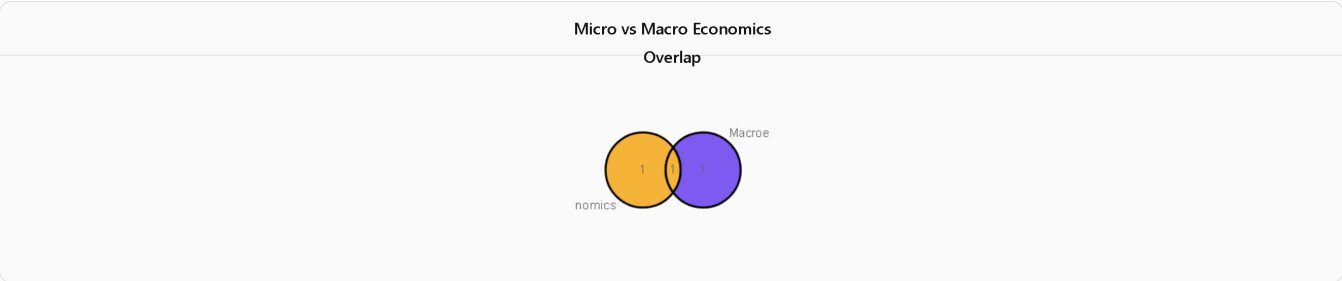
Macroeconomics: Government/society-wide decisions affecting **everyone**. Consequences borne collectively (macro entity). +3

Car Tax Example (Diesel polluting vs. cleaner petrol):

- Govt. adds ₹1L tax on diesel → Now ₹2L pricier → Break-even 8 years (vs. 4) → Many shift to petrol. +3
- Decision: Govt. (not personal). Impact: Society-wide (pollution down). 52:44 53:03

Aspect	Microeconomics	Macroeconomics
Decision-Maker	Individual/Firm (own resources) 42:26	Government (public policy) 55:24
Scope	Particular entity 53:57	General society 54:26
Consequences	Borne by decider 48:16	Borne by all 56:21
Example	Petrol/Diesel personal choice 43:21	Diesel tax policy 52:15
Relevance	Individuals efficient 57:43	Govt. must be rational 58:11

Micro: "My business output." Macro: "Economy's total output." UPSC focuses macro (govt. training). +3



Practical Examples of Economic Decision-Making

Economics = rational choices under constraints.

Petrol vs. Diesel Car (₹10L budget, 70km/day run):

- Petrol: Cheaper buy (₹9.5L), expensive fuel (₹100/L, 15km/L) → Daily ₹500.
- Diesel: Costlier buy (+₹1L=₹10.5L), cheaper/efficient fuel (₹90/L, 20km/L) → Daily ₹400. +4
- Savings: ₹100/day → ₹3K/month → ₹36K/year. Break-even: ~3.5-4 years. +4
- If keep <4 years (e.g., 3): Petrol better (no recovery). 43:21
- Poor choice (diesel, sell early): Inefficient resource use. 44:16 44:46

3-Star vs. 5-Star AC: Similar—cheaper upfront vs. efficient electricity; calculate break-even on usage/cost. 45:58 46:21

Key: Analyze costs, usage, horizon for optimal allocation. 34:18

Course Syllabus and Structure

Orientation only; classes start tomorrow (~55 lectures, 3hrs/day). Focus: UPSC macroeconomics (from PYQs analysis, not notification—uselessly vague). 02:00 01:01:22 01:03:40

Syllabus Breakdown (Prelims weightage last 10yrs, ~20Q/yr; post-2021: ↓ questions, ↑ capital markets 01:02:41):

Unit/Topic	Subtopics	Notes
Developmental Economics 01:06:08	Poverty, Inequality, Unemployment	Start here
Basic Concepts 01:06:38	Demand/Supply Law, Economy Types, Goods Types	
Core Macroeconomics 01:07:07	National Income Accounting (GDP/NIA), Inflation, Monetary Policy 01:07:36	
Banking & Capital Markets	Banks/NPAs, Stocks/Bonds/IPOs 01:07:36	
External Sector 01:08:02	Balance of Payments, Exchange Rates, Current Account Deficit	
Institutions	IMF, World Bank, WTO 01:08:02	
Agriculture 01:03:10	Key prelims area	
Government 01:08:33	Budgeting/Fiscal Policy, Debts/Deficits, Taxation, Infrastructure/Industry	

Covers prelims (20Q), mains GS2/3 (IR/economy ~9Q), GS1 (economic geography). 01:13:17 01:13:47 PYQs dictate: Agriculture/budgeting/growth max. 01:01:51

Class Logistics:

- Hinglish (mostly English; Hindi repeated in English).
- Monologue; Q&A end.
- Notes: Topic-wise provided weekly; add your writes. 01:25:55 01:34:26
- Timing: Week1 4:30-7:30PM; next 4-7PM (confirm comms). 01:35:17 01:35:42

Recommended Sources and Study Strategy

Hierarchy (Read few sources repeatedly; no book collection 01:24:33):

1. **PYQs** (Foremost): Analyze 10yrs for syllabus/depth/breadth. Watch institute videos (1.5x speed, no pause/solve—just listen). Reveals exam rules/connections (e.g., currency crisis links BOP/IMF). +4

2. **NCERTs** (Class 11-12: Indian Economy, Macro, Micro Ch1+): Core for NIA/budgeting/external. Repeat often. 9-10th for language command (simple sentences). +3
3. **Class Notes + Economic Survey**: Notes cover all; Survey for non-NCERT (agri/infra/health). +3
4. **Newspaper** (1.5hr max, no notes): Indian Express/Hindu. 100% GS2/3/cases from here. +3

Strategy:

- Shun "important" label—**all** matters. 01:02:18
- PYQs first (ignore "experts"). 01:11:30 01:14:40
- Notes: Write alongside class (sharpens focus). 01:33:05 01:33:34
- Daily: Class + revise + newspaper (4-5hrs min). 01:41:17 01:41:43
- No YT current affairs/mags (waste); good mags optional. 01:28:14 01:38:27
- Tests for revision. 01:31:03

Micro/Macro Relevance: Individuals: Micro (efficiency). Govt. aspirants: Macro essential. 57:19 57:43

> "I fear not the man who knows 1000 kicks once, but the one who knows one kick 1000 times." – Bruce Lee (Repeat sources deeply). 01:25:00

Class 1

Why Economics Basics Are Hard and How to Approach the Subject

Economics concepts don't clear because students lose interest in the first 2-3 classes; they don't like understanding or reading the subject deeply, leading to reluctance that fades willingness to learn more. +3 Instead of understanding, students abandon the subject as "technical" or memorize facts like poverty measures without context—e.g., questioning who measures poverty (Planning Commission, Modi government, British, or ancient rulers like Ashok who asked ministers about poor people to help them). +3 This rote approach extends to current affairs and schemes, skipping why poverty measurement has existed for centuries/millennia. 04:17

Teacher explains: Start PYQs (Previous Year Questions) immediately—no perfect time waits; begin now to build curiosity (inquisitiveness) rather than just dumping facts. 01:06 15:03 Goal of 50-55 classes: Make students capable of understanding notes, newspapers independently, not just memorize. +4 Avoid starting with National Income Accounting (NIA)/GDP (first chapter in most UPSC books/coaching materials) as it's "bouncer" concepts causing immediate reluctance, boredom, and dropout (half strength in 5 classes if started there). +3

Key Teaching Strategy:

- Begin with easier Developmental Economics > Poverty for prior knowledge/comfort (everyone has seen poverty). +3
- First 5-10 classes build tempo/connection/discipline (bear minor boredom); repeat concepts for slower learners. +7
- Faster students: Stay disciplined—helps others; pace picks up post-10 classes assuming comfort. 08:48
- Online mode: No chatting (distracts); ask important questions only; chat may close for focus. 01:54 02:08
- Material updates: Larger font, side space for notes (printing). 02:26 02:40
- Engage actively: Answer questions mentally/aloud to stay attentive 3-hour classes, minimize distractions (social media, noise). +5

Challenge	Solution
Early boredom/reluctance	Start simple (Poverty), build curiosity gradually 03:45 06:23
Memorization trap	Understand "why" via stories/examples +3
Distractions (online)	Mental responses, no chat 02:08 12:42
Varying speeds	Repeat for all, accelerate later 08:16 08:48

Introduction to Poverty: World Bank Definition

Poverty (garibi) is familiar—common views: lack of income/assets, can't afford basics (clothes, house, healthcare, education for dignified life). 10:57 11:10 Students aren't poor (paying course fees makes non-poor, though lower middle-class vs. rich like Ambani). +4 Some saw poverty in childhood/surroundings. 12:29

World Bank Definition (Comprehensive, UPSC PYQ 3x, incl. 2017 Paper 1 & 3 verbatim): Poverty is a **state of pronounced deprivation** (severe lack) **on various aspects of well-being**. +8

- **Pronounced**: Very severe/marked deprivation. 15:46 20:49
- **Deprivation**: Being deprived of something essential. 13:56
- **Well-being**: No fixed definition; rational mind's sense of "feeling well-off" (multi-dimensional, not just income). +3

Aspects of Well-being (Examples, not exhaustive—notes list 6-7):

Aspect	Contribution to Well-being	Deprivation Example
Income	Most important for some; meets basics 16:43	No income for expenses 19:28
Health	Good health needed 16:52	Primary health center 50km away; die from curable dengue/malaria +3
Education	Access to education 16:52	No access 20:12
Physical Security	No robbery/murder/rape 17:05	Crime-infested, no state law/order 20:24
Social Security	Post-retirement (pension), family protection (life/health insurance); avoid poverty from hospitalization +4	No safety net 17:42
Environment	Clean air/water 18:03 18:16	Polluted like Delhi 18:03
Assets	E.g., two-wheeler 19:04	Lack 19:04
Political Voice	Ability to argue/present case; not ignored minority 21:51 22:03	No voice for policy help 22:03 22:15
Opportunities	Access to improve life 21:25	No way to upgrade living standards 21:37

Anything contributing to "well-off" feeling is well-being; pronounced deprivation across these = poverty (e.g., household with no income/health access faces poverty). +7 Simpler terms: Lack income for basics or opportunities. 21:14 21:25

Measuring Poverty: Challenges and Need for Criteria

Post-definition: If 5 students assess "how many poor in class of 4000?" using same definition, they'll give different numbers. +9

Why Different Estimates?

1. **Different Aspects Chosen**: Person 1 picks income, Person 2 health, Person 3 both (various aspects = subjective choice). +3

2. **Different Standards/Criteria per Aspect**: Even same aspect (income)—Person 1: <₹20,000/month poor; Person 2: <₹30,000; Person 3: <₹1 lakh. +6 Or health: >50km to primary center = poor. +4

Core Insight: Poverty measurer chooses:

- Aspect(s) of well-being.
- Cut-off standard (above = non-poor; below/at = poor). +4 Rational, any criteria works. 29:42

Absolute vs Relative Poverty

Absolute Poverty (aka Normative Poverty): Standard/criteria-based assessment (not "utterly poor"—absolute emphasizes fixed standard). +6 Expert opinion sets standard (e.g., government uses economist/professor, not random). +5

- Example: Survey incomes, apply ₹30,000/month cut-off → 500/2000 below = poor (absolute poor). +4
- Normative = opinion-based (positive = fact; normative = opinion). +16
    - Standards like ₹20k or 50km are opinions, not facts. 36:14

Relative Poverty: Comparative (measures inequality more than poverty). +5

- Compare individuals/groups: You poorer than teacher; teacher than institute owner; owner than Ambani; Ambani than Elon Musk. +7
- Vs. group average/mean: Group incomes (₹1L,2L,5L,10L,1Cr) avg ~₹20L → 4/5 below average = relatively poor. +5
- E.g., P1 (₹1L/month) not absolute poor (above most standards) but relatively poorest in group. 43:19 43:38

Chapter Focus: Absolute poverty (PYQs/standard-based); relative/inequality next chapter. 42:17 46:04 Use "poverty" = absolute unless specified. 46:04 Absolute = criteria-based start. 46:19

Absolute Poverty: Definition and Core Concept

Absolute poverty is defined using a **standard-based or criteria-based** approach. 46:19 46:30 An expert establishes specific criteria (e.g., minimum income or consumption level), and individuals are classified as poor if they fall below it, or non-poor if they meet or exceed it. 46:19 46:30 This creates a fixed threshold—anyone unable to meet the criteria is poor. 46:30 From here onward, all discussions of "poverty" refer **exclusively to absolute poverty** (standard-based); relative poverty is reserved for the inequality chapter. 46:57 47:24

Key Insight: Absolute poverty uses an objective benchmark, unlike relative poverty which compares to others.

Why Measure Poverty? (The "Why" Before the "How")

Measurement answers: In a population (e.g., class of 4000 students, Delhi's 5 crore people, UP's 15 crore, or India's 140 crore), **how many are poor**? +5 Direct surveys (asking everyone's income) are impossible at scale—you can't poll every person. +3 Understanding **why** we measure is crucial before **how**.

Common Misconception: Why NOT Measure Poverty This Way

Most think: Measure to identify poor for government benefits (e.g., uplift via schemes). 51:31 51:55 **Wrong direction, but not fully correct**. Government has 500+ anti-poverty schemes (PM Awas Yojana, Ayushman Bharat, PDS), each with **unique beneficiary identification criteria**. +5

Scheme Example	Beneficiary Criteria	Benefit Provided
PM Awas Yojana +3	Living in non-pucca house (kaccha: neither roof/walls bricked; semi-pucca: one of roof/walls unbricked; pucca: both bricked)	Subsidy for house construction/home at low cost
PDS (Public Distribution System) 53:09 55:12	Ration card issuance based on state criteria (e.g., income/family size)	Subsidized food (atta, dal, rice) at ration shops
Ayushman Bharat 55:28	Fulfills specific 5 criteria (e.g., low income/vulnerable)	Up to ₹5 lakh health treatment borne by govt in private hospitals

Problem with Using Schemes for Poverty Measurement:

- Each scheme identifies **unique beneficiaries** (e.g., P1 in Scheme 1 & 2, but not 3). +3
- Aggregating unique beneficiaries across **all schemes** gives a list of "scheme recipients," **not true poor**. +3
- These are "beneficiaries," not "poor"—you can call them poor informally, but technically they're scheme-eligible. 57:29 57:41

Government's Limited Resources: Economics core—limited resources, unlimited wants; must allocate efficiently. 57:54 Govt has **limited money**, can't provide all benefits to everyone—only **some benefits to some people** (those needing most). +4

Errors in Beneficiary Identification (Trade-off Exists):

- **Inclusion Error**: Undeserving (non-poor) get included (e.g., via fraud/easy criteria). +5
- **Exclusion Error**: Deserving (true poor) get excluded (e.g., lack documents/time/bribes). +5

Error Type	Description	Example
Inclusion Error 01:01:19 01:03:29	Undeserving included in beneficiary list	Non-poor fakes docs for PDS subsidy
Exclusion Error +3	Deserving excluded from list	Poor lacks proof/time to apply for PM Awas

Trade-off (Key Economics Concept): Two desirable but conflicting objectives—minimize inclusion (no waste on undeserving) AND exclusion (no denial to deserving). +5

- **Trade-off Definition**: Desirable goals conflict; pursuing one sacrifices the other (e.g., IAS vs footballer—practice conflicts with study). +7
- Easy criteria: Minimizes exclusion (deserving enter easily) but maximizes inclusion (undeserving sneak in). +3
- Strict criteria: Minimizes inclusion (blocks undeserving) but maximizes exclusion (blocks deserving). +3

- Analogy: Stadium entry—small guarded gate blocks undeserving but excludes ticket-holders; wide gate lets all in (good+bad). +3

Conclusion: We **don't measure poverty via schemes**—each has unique criteria trying to minimize both errors (imperfectly). +5 Beneficiary lists have errors; can't accurately count "true poor." 01:10:01 01:10:15

True "Why" Measure Poverty

Govt spends **lakhs of crores** on subsidies (fertilizer, PM Kisan ₹6000/year, gas, food). 01:11:20 01:11:35 Must assess: Is money spent **efficiently/effectively**? +3 Does it reduce poverty (people escaping basic living standard)? +3

- Set **milestone** (poverty line/standard): E.g., 1000 below basic standard before; after spending, 900 below = 100 escaped = progress. +5
- **Purpose**: Compare "how many poor before" vs "now" to assess **progress** (not to give/deny benefits). +6
- E.g., ₹5 crore spent: 100 escape (good) vs 10 escape (inefficient). 01:16:43
- **Purely Academic Exercise**: Poor don't care (they focus on schemes, not economist estimates like "10% poor"). +6 No one uses it for benefits—it's normative (expert-suggested standard). 01:18:35 01:18:49

Different Standards Yield Different Estimates (Still for Comparison):

Expert Standard	Before: Poor Below	Now: Poor Below	Progress
Person 1: ₹10,000/month 01:19:07 01:19:28	1000	900	100 escaped
Person 2: ₹2000/month 01:19:45 01:20:04	4000	3500	500 escaped

Purpose: Per standard, compare past vs present poor numbers. +3

Govt Process: Consults expert for "reasonable" poverty line/standard → Estimates % poor (e.g., 10% now) → Re-estimates later (e.g., 8%) = progress. +6

Poverty Measurement Reality: We Estimate, Not Measure Exactly

- **Not Exact Count**: No need for precise headcount (impossible at scale). +3
- **Estimate Incidence**: Rough % (e.g., 10% → 8%) suffices for academic progress check. +3
- No individual identification—just aggregate comparison. 01:24:23

How to Measure (Estimate) Poverty: 4-Step Process Teased

Poverty estimation follows a **simple 4-step process** (detailed in next class). 01:25:16 Focus here was building "why" foundation for understanding the "how."

Measuring Poverty: The Four-Step Process

Poverty measurement follows a structured **four-step process** to estimate its incidence scientifically without assessing every individual in the population. This process ensures all prior discussions (why measure poverty, why not, trade-offs) connect into a synchronized framework. 01:25:16 01:25:31

Step 1: Establish a Standard (Poverty Line - PL)

- First, define a **standard** suggested by an expert, called the **Poverty Line (PL)**.
- The PL classifies people as poor or non-poor based on a specific threshold (e.g., monthly income of ₹20,000). +3
- This standard is normative (opinion-based) and absolute, focusing on minimum well-being requirements. 02:11:46
- Why? Without a benchmark, classification is impossible. 01:26:42 01:27:08

Step 2: Construct a Representative Sample

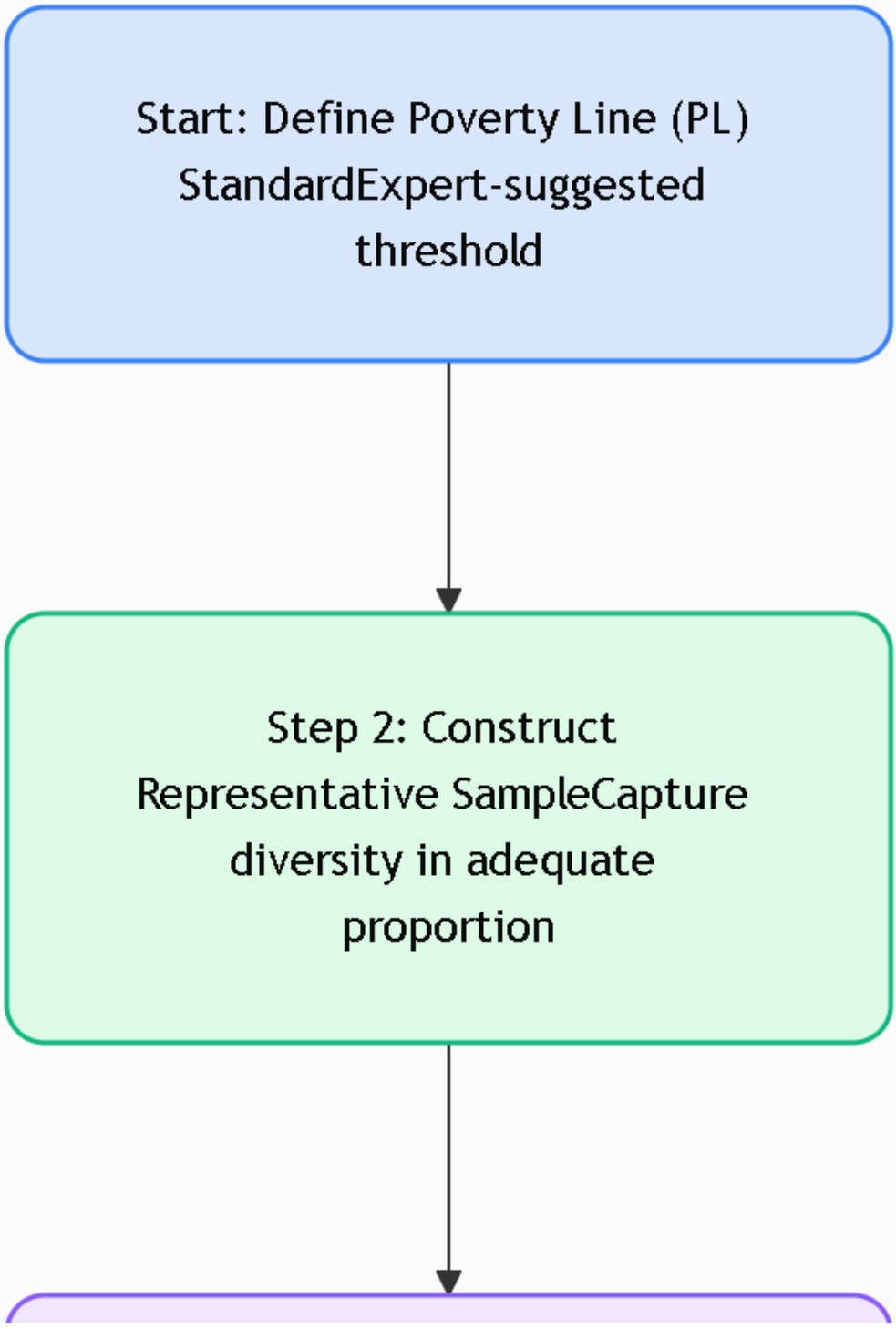
- Cannot survey the entire population (e.g., 5 crore people in Delhi) due to impracticality.
- Instead, build a **small, representative sample** (e.g., 5,000 people) capturing population **diversity in adequate proportion**. +3

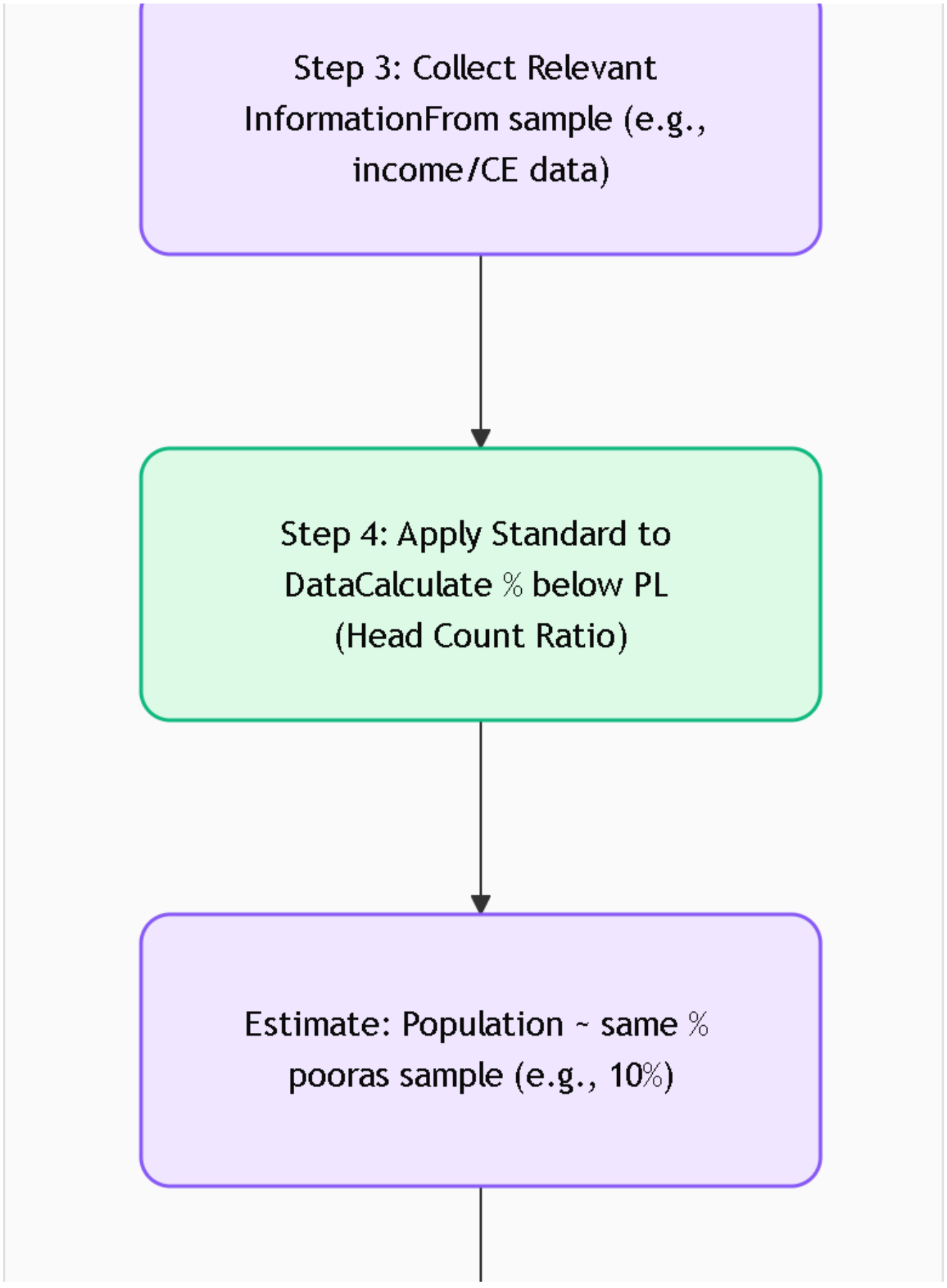
- Key requirement: Sample must be **well-representative** – not skewed or biased toward one group (e.g., only rich Rajender Nagar or poor Seelampur).
    - Bad sample (Rajender Nagar only): Underestimates poverty (e.g., 5% poor → wrongly projects 5% for Delhi). +3
- Bad sample (Seelampur only): Overestimates poverty (e.g., 30% poor → wrongly projects 30% for Delhi). +3

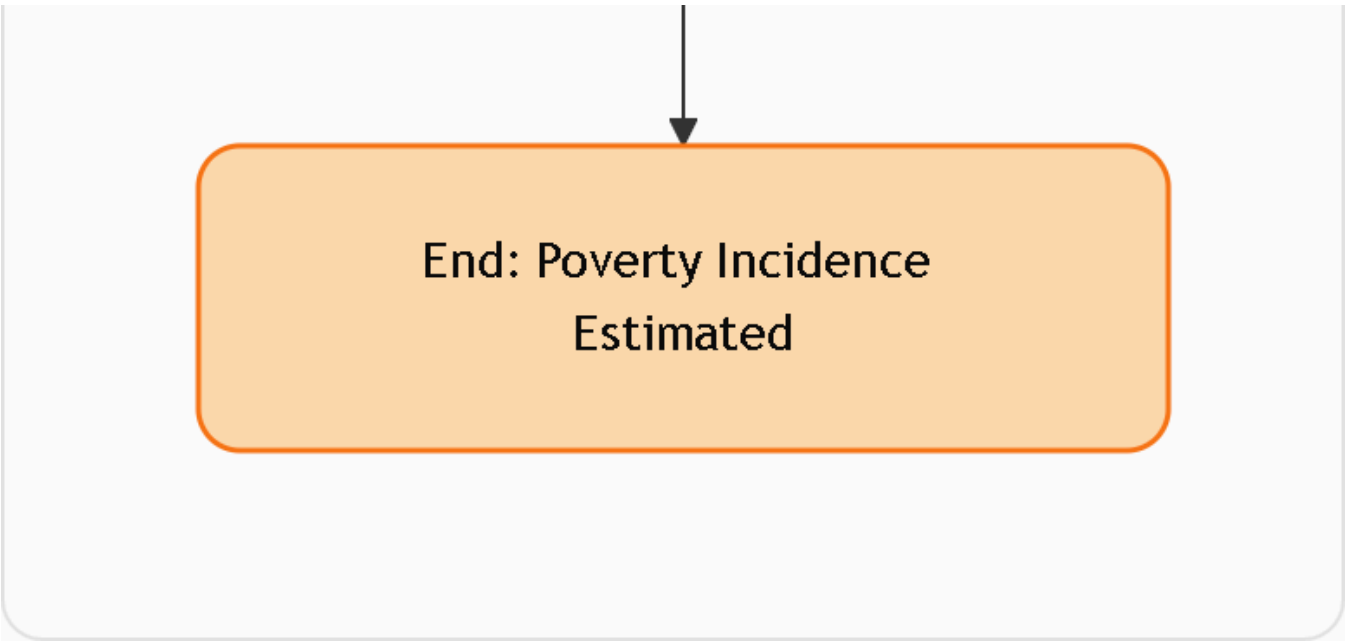
Sample proportions should mirror population (e.g., if 10% from Rajender Nagar, 20% from Seelampur, sample reflects this). +4

Avoid **skewed (skewed)** or **biased** samples; this is the most technical step. +4

Four-Step Poverty Measurement Process




Step 3: Collect Relevant InformationFrom sample (e.g., income/CE data)
Step 4: Apply Standard to DataCalculate % below PL (Head Count Ratio)
Estimate: Population ~ same % pooras sample (e.g., 10%)


End: Poverty Incidence
Estimated

Step 3: Collect Relevant Information from Sample

- Gather data **relevant to the standard** only (e.g., if PL is income-based, collect income; not irrelevant info like school attendance or hospital distance). +5
- Ensures focus: Match data to PL aspect (e.g., consumption expenditure - CE, introduced later). 02:11:17

Step 4: Apply Standard and Calculate Proportion

- Arrange sample data (e.g., incomes of 5,000 people in ascending order: P1 = ₹10 crore, ..., P5000 = ₹5,000).
- Apply PL (e.g., ₹20,000/month): Count below it (e.g., 500/5,000 = 10%).
- This **Head Count Ratio (HCR)** or **Poverty Ratio (PR)** estimates poverty incidence. +10
- Since sample is representative, project to population: ~10% poor (approximate, not exact). +7

Step	Action	Key Principle	Example
1	Have a Standard (PL)	Expert-suggested threshold	₹20,000/month income 01:42:18
2	Construct Sample	Representative of diversity	5,000 people mirroring Delhi's rich/poor mix 01:42:33 01:42:44
3	Collect Info	Relevant to PL	Income data only 01:43:28
4	Apply Standard	% below PL = HCR	10% poor in sample → ~10% in population 01:43:42 01:43:58

Recap: Scientific estimation, not exact count. Sample results extrapolate due to representativeness. 01:42:04 01:48:52

Why Not Measure Poverty for Benefits (Key Clarifications)

Poverty measurement is a **purely academic exercise** on a sample, not for distributing/denying government scheme benefits. +5

- **No Beneficiary Identification**: Schemes (e.g., PMAY, Ayushman Bharat, PM Svanidhi, Ujjwala) have **independent criteria**. Poverty Line isn't used to decide beneficiaries. +5
    - Everyone getting a scheme benefit is "poor" in some aspect (needing support), but not all poor get all schemes. +5
- Person may qualify for 100/500 schemes (beneficiary in some aspects) but not others – label as "beneficiary person," not poor/non-poor. 01:56:43

Avoids Injustice (Trade-off Example): Strict PL (e.g., ₹20,000) ignores near-misses (₹19,900 vs ₹20,100) – virtually identical living standards, possible measurement error. No justice in arbitrary cutoffs. +9

Purpose: Track progress (e.g., fewer below PL now vs earlier). Not for benefits/denials. 01:59:49

Trade-off Concept: Two desirable objectives (A & B) conflict; achieving both simultaneously is difficult, forcing a choice (sacrifice one). +3

- Example: Civil servant (study time) vs footballer (practice time) – limited 24 hours/day. +3

Forest Officer Analogy: Illustrating Sampling & Approximation

To clarify sampling:

- Task: Estimate average tree height in Jim Corbett (5 lakh trees) – can't measure all.
- Steps:
    1. Drone survey: 50% tall, 30% medium, 20% small trees.
- Sample 100 trees in same proportion (50 tall, 30 medium, 20 small).
- Measure: Average = 51 meters.
- Project: Forest ~51m (good estimate, not exact; scientific process). +14

This mirrors poverty: Representative sample → reliable approximation.

Expert's Role in Poverty Line Construction (PLB Intro)

Experts suggest PL via **reasoning**, not just opinion. 02:00:17 02:00:39

- **What Makes an Expert?** Not experience/degree alone – it's **reasoned explanation** behind opinion.
    - Layperson: Picks ₹20,000 intuitively (e.g., half family income, maid's pay); stumbles on "why?" +11
- Expert: Picks precise number (e.g., ₹5,542) with full justification for every digit (why not ₹5,541?). +3

Difference: Expert has **reasoning chain** (how arrived at number?). Opinion may match layperson's, but backing reasoning elevates it. +16

Poverty Line is **normative** (opinion-based). 02:11:46

Poverty Line Basket (PLB): Expert basis for PL, using **Consumption Expenditure (CE)** (not income; detailed later). +4 PLB constructs the threshold rationally. 02:00:03

Class Note: Repetition ensures understanding (first online class); builds from basics to new concepts like World Bank poverty definition (pronounced deprivation vs well-being), PL construction. Focus: Understand first, then memorize. +10 Next: PL construction/evolution. +5

Normative Nature of Expert Poverty Lines

Poverty measurement relies on a **standard** suggested by an expert, known as the **Poverty Line (PL)**. This standard is **normative**, meaning it is based on **opinion** (what the expert believes should be), not absolute fact. 02:11:46 02:12:06

- **Normative vs. Absolute Poverty**: Absolute poverty has fixed criteria; normative poverty varies by expert opinion. Each expert provides a **reasoned opinion** with **explanation** behind their number (e.g., one says ₹36,645/month is the line, another ₹43,20—both reasonable if backed by logic). +3
- **Reasonable Opinion**: Differs across experts but must include **explanation** derived from the **Poverty Line Basket (PLB)** concept. Without reasoning, it's arbitrary; with it, it's a valid normative standard. 02:12:56 02:13:10

Key Point: Multiple experts can suggest varying numbers (e.g., Expert 1: low figure; Expert 2: higher), all reasonable if explained via PLB. The choice doesn't matter—focus is on the reasoned process. 02:12:38 02:12:56

Concept of Poverty Line Basket (PLB)

PLB is a **hypothetical basket of goods and services** constructed by an expert, representing the **minimum necessary** for a **life of basic dignity**. +3

- **Expert's Role**: Expert (normatively) decides: "According to me, everyone should consume **at least** this basket to live with basic dignity." If someone can't afford even this, they face **pronounced deprivation** across well-being aspects. +3
- **Not Actual Basket**: Hypothetical/normative—expert's opinion on necessities (beyond this = luxury). 02:15:19 02:15:34
- **Definition**: PLB = basket enabling **basic dignity** (e.g., food, housing). Can't afford it? Poor. Can? Non-poor (per that expert). +3

Mechanism:

1. Expert lists **specific goods/services + quantities**.

2. Prices from **relevant market** → total **consumption expenditure** = **Poverty Line (PL)**.

3. PL = **monetary value of PLB** = minimum monthly spend for basic dignity. +4

PL is Consumption Expenditure (CE)-Based (not income): Amount needed to purchase PLB for basic dignity life. Spend ≥ PL? Non-poor. Spend < PL? Poor. +3

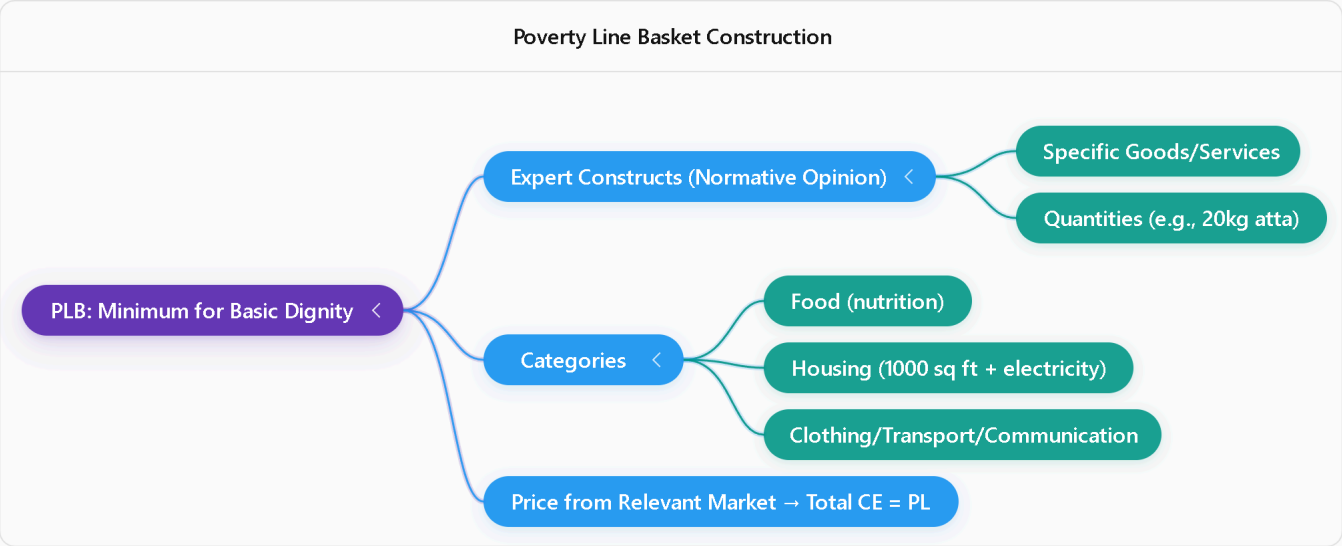
Constructing a Poverty Line Basket (Example)

Expert constructs PLB for a **unit** (e.g., **household of 5** for **1 month**—typical: grandma, parents, 2 kids). Focus: Minimum to consume for **basic dignity** (roti, kapda, makan + more). +3

Category	Specific Items & Quantities (Expert's Opinion)	Rationale
Food	20kg atta, 10kg rice, 20kg dal, 40L milk, 30kg fruits/vegetables	Specifics needed—not just "food." Enables nutrition for basic health. +3
Housing	1000 sq ft area, house maintenance, electricity (300 units/month)	Minimum space for 5; basics like lights/fans (no AC/heater luxury). +4
Clothing	Daily wear, formal clothes, footwear	Basic coverage. 02:18:57 02:19:13
Transport	25 trips (to/fro, 15km each) in public transport	Working person travels ~25 days/month (e.g., grade-4 job); bus tickets affordable. +4
Communication	1-2 mobile phones with 1GB data each	Basic connectivity (no iPhone/unlimited plans). 02:24:45 02:25:00

- **Customization**: Experts differ (e.g., add health/education? Specify quantities/costs). This is **precise** (separates expert from non-expert). +4
- **Non-Exhaustive**: Can expand (health: specify doctor visits; education: school fees). 02:43:15 02:43:30

Homework: Construct your own PLB (list items + quantities for household of 5/month). 02:42:58 02:43:15



If household affords (spends) this? Lives basic dignity (non-poor). Less? Poor. +3

Pricing PLB to Get Poverty Line

1. Go to **relevant market** (context-specific, e.g., local prices).
2. Price each item/quantity (e.g., 20kg atta = ₹1000; rice = ₹500; dal = ₹1000; milk = ₹1000; housing rent = ₹5000; electricity = ₹1000; transport = ₹500).
3. **Total Expenditure** = e.g., ₹25,542/month (example). +6

Result: This total **separates poor (spend < PL) from non-poor (≥ PL)**. PL = **CE required** for PLB (basic dignity). +5

Why Consumption Expenditure (CE)-Based, Not Income?

India (most countries) uses **CE-based PL** (not income). +4

Reason	Explanation	Example
1. Truthful Revelation	People hide income (won't reveal earnings) but reveal spending comfortably. Ensures accurate data. +4	Ask income? Lie. Ask expenditure? Truthful (relatively). 02:36:48
2. Stability	Income **volatile** (fluctuates month-to-month); CE **stable** (necessities consistent). Better for measurement. 02:37:02 02:37:17	Sari shop: Month 1 income ₹1L, spend ₹30k. Month 2: ₹50k income, spend drops to ₹25k (not half). Zero income? Still spend ₹20k on basics. +6

Process Summary (Scientific Method):

1. **Standard**: Expert's PL (CE-based).
2. **Sample**: Representative population.
3. **Collect**: CE data (not income)—"How much do you spend?"
4. **Apply**: Count below PL → Headcount Poverty Ratio. +6

Evolution of Basic Dignity and PLB

Basic dignity evolves (not frozen):

- **Time**: 200yrs ago: Food only. Now: Roti-kapda-makan + transport/comms/internet/social media? 02:43:44 02:43:55
- **Experts/Societies**: Varies (India ≠ China/USA; one expert adds health, another doesn't). +3
- **PL Evolves**: Baskets change → PL values adjust. +4

Pre-Independence Poverty Lines

Poverty measured for millennia (e.g., Ashok estimating poor for aid). **Scientific method** (standard-sample-info-apply) relatively recent. +6

Pioneer: Dadabhai Naoroji (1860s-1900s):

- Book: *Poverty and Un-British Rule in India* (1906; argued British rule increased poverty).

- **PLB**: Cost of **3 square meals/day** as in British jails (basic dignity benchmark; e.g., ₹90/person/day—example). +6
- **Method**: Sample surveys → applied ₹90/day standard.
- **Findings** (examples): 1860: 60% poor; 1870: 65%; 1890: 70%; 1900: 75% → Poverty rising under British rule. +5

Other Efforts:

- **National Planning Committee (NPC, 1938)**: Nehru/Bose chaired (Congress); post-1935 elections, aimed poverty reduction via food-based PL. +4
- **Bombay Plan (1944)**: Industrialists pre-independence; food-based PL for policy. +4

All focused **food** as basic dignity. 02:57:22

Post-Independence Poverty Measurement

Planning Commission (PC) (advisory body, now NITI Aayog) tasked with tracking poverty (e.g., 1951 vs 1965 levels) via schemes' impact. +5

- **Early PC**: Internal experts set PL, measured poverty. 02:59:12 02:59:24
- **Later (post-1970)**: Constituted **external expert committees** for PL recommendations (PC applied to NSSO data). +3

Key Committees (recommend PLB/values; detailed next class):

1. Dandekar & Rath
2. Alagh (Y.K. Alagh)
3. Lakdawala
4. Tendulkar
5. Rangarajan 03:00:37 03:00:54

Data Collection: **NSSO (National Sample Survey Office)** conducts household surveys (CE data)—experts don't. 03:01:39 03:01:56

Recap: Expert → PLB → Relevant market prices → PL (CE value) → NSSO data → % poor. Pre-Independence: Food-focused; evolves with dignity concept. +5

Poverty Estimation in India

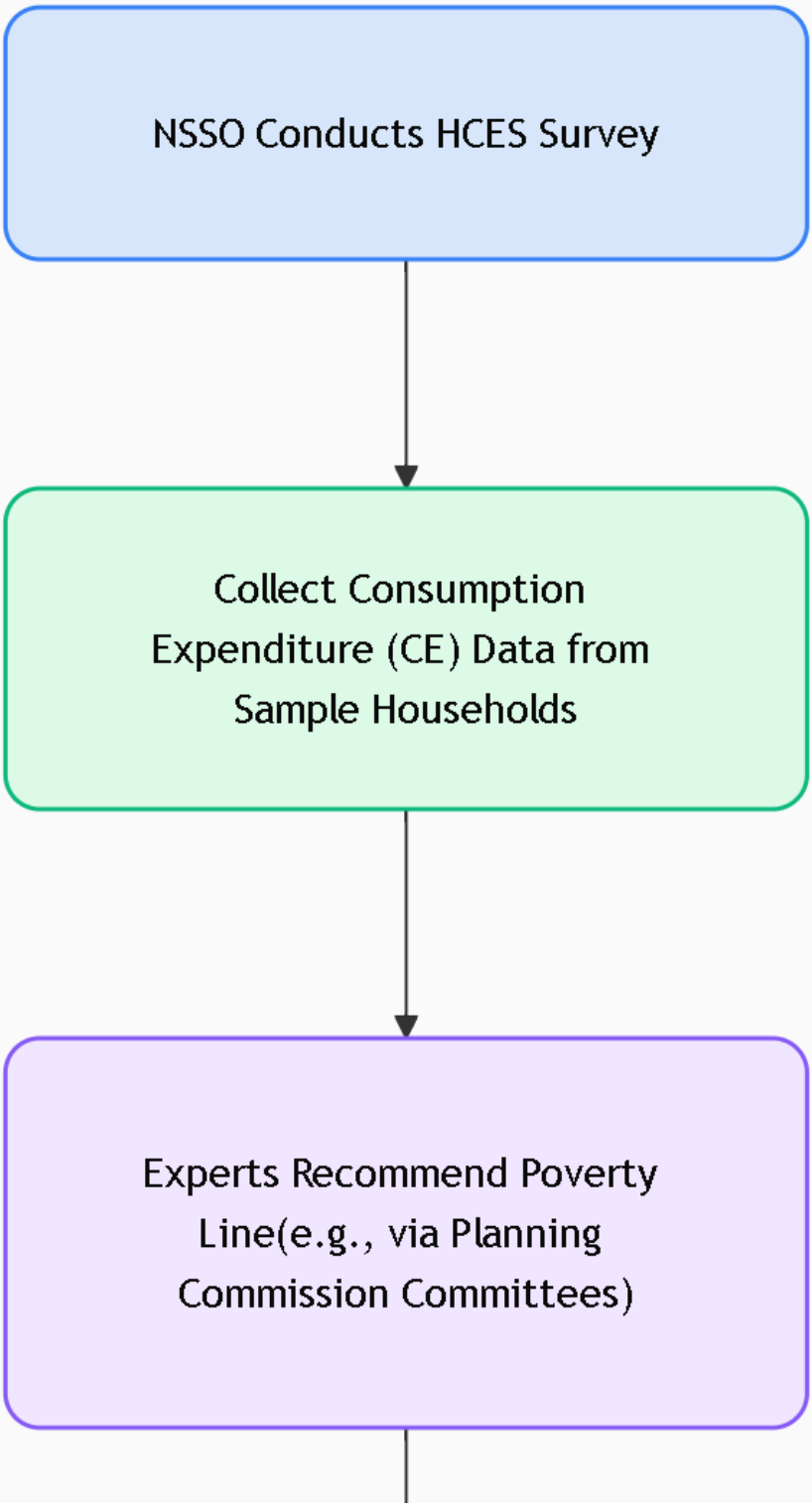
Poverty estimation in India relies on assessing household consumption expenditure to determine if spending falls below a defined poverty line. Experts do not directly survey every household due to impracticality, so a specialized body conducts representative surveys. This process identifies the poverty basket based on essential household consumption needs like food, clothing, and shelter. +3

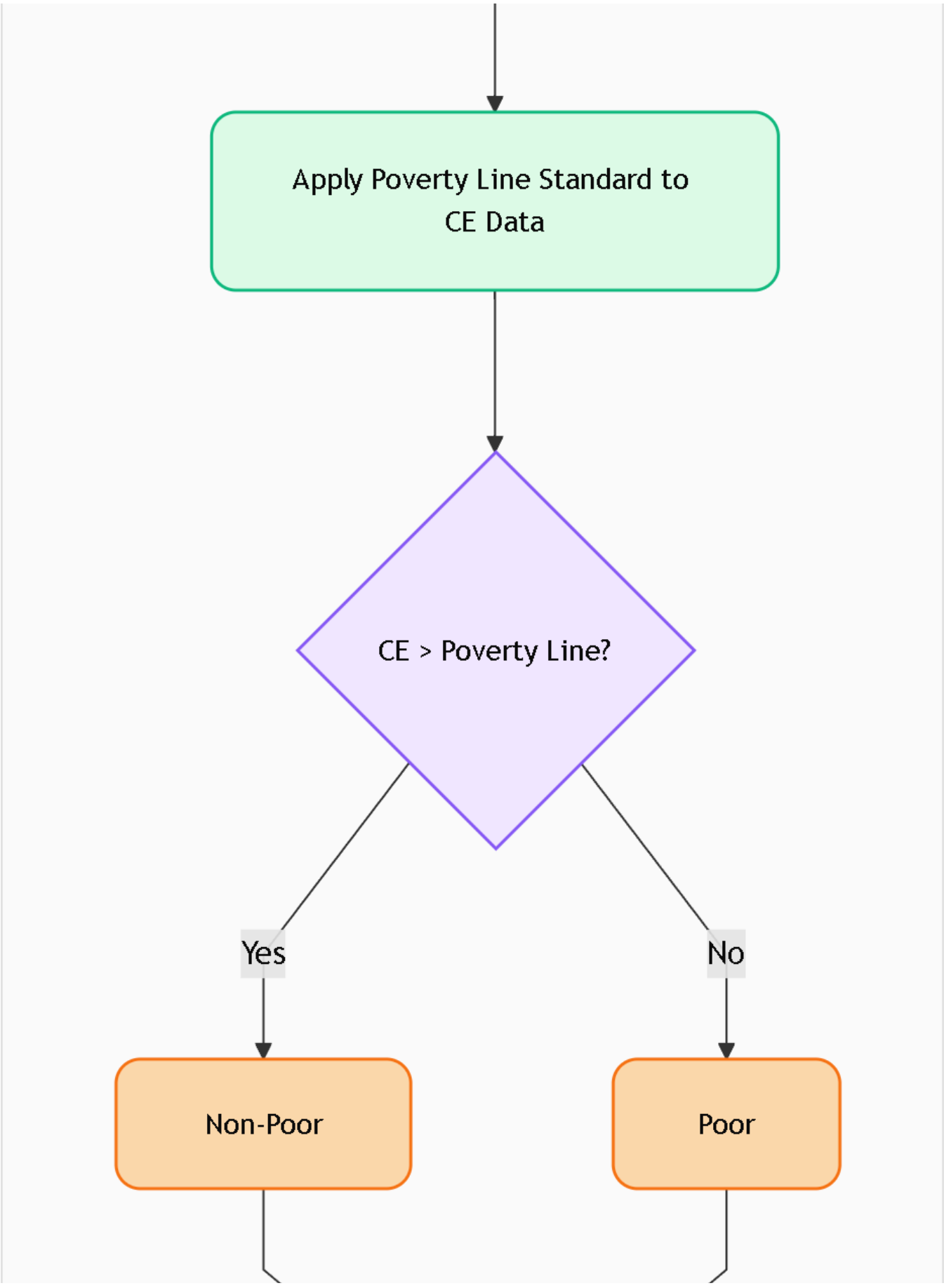
Role of NSSO and HCESSurvey

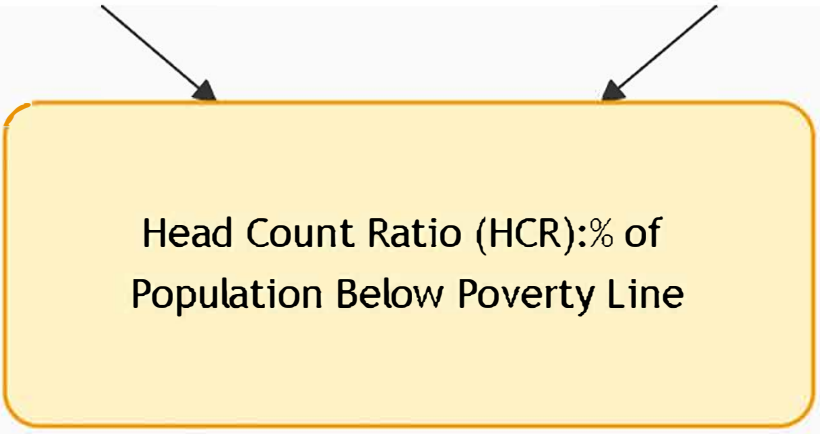
The **National Sample Survey Office (NSSO)** is the government body responsible for carrying out surveys and collecting information on various socio-economic indicators, including poverty. NSSO conducts the **Household Consumption Expenditure Survey (HCES)**, which samples a subset of households across the country and gathers data on their monthly consumption spending. +4

- **Why HCES?** It directly measures real household expenditure (e.g., "How much are you spending?") to compare against the poverty line.
- **Key Logic:** If a household's consumption expenditure is **above the poverty line**, they are classified as **non-poor**. If **below**, they are **poor**. 03:02:36 03:02:56

Poverty Estimation Process via HCES




Apply Poverty Line Standard to CE Data
CE > Poverty Line?
Yes
No
Non-Poor
Poor


Head Count Ratio (HCR):% of
Population Below Poverty Line

This flowchart illustrates the step-by-step mechanism: (1) Standard poverty line definition, (2) Sample selection, (3) Data collection via survey, (4) Applying the standard to find the proportion below it, yielding the **Head Count Ratio (HCR)**—the percentage of the population below the poverty line. 03:03:23 03:03:38

Historical Context: Expert Committees and Poverty Lines

Earlier, the **Planning Commission** constituted expert committees to recommend poverty lines based on consumption baskets. These committees provided standardized thresholds to NSSO for application on HCES data. Specific committees and their recommendations (e.g., Rangarajan Committee, Tendulkar Committee) define different poverty lines, which will be studied in detail next. 03:02:56 03:03:08

Step	Description	Purpose
1. Standard	Expert committee recommends poverty line (consumption threshold)	Sets benchmark for "minimum needs"
2. Sample	NSSO selects representative households	Ensures nationwide coverage without full census
3. Data Collection	HCES surveys actual spending	Captures real expenditure patterns
4. Application	Compare household CE to poverty line	Classifies poor vs. non-poor
Output	Head Count Ratio (HCR %)	National poverty estimate 03:03:38

Upcoming Topics and Comparisons

The next class will cover:

- Detailed Indian poverty lines (e.g., from expert committees like Rangarajan and Tendulkar).
- **World Bank Poverty Line**: An international absolute standard (typically $1.90/day PPP, adjusted for India).
- **Multidimensional Poverty Index (MPI)**: Measures poverty beyond income, including health, education, and living standards. 03:03:55

These build on HCES data but use different metrics—HCR is consumption-based (unidimensional), while MPI is broader. 03:04:12

Homework and Preparation Instructions

To prepare without gaps:

1. **NCERT Indian Economy**: Locate the poverty discussion (not a standalone chapter). Check index for "Developmental Economics" or similar (older editions label it as such; newer may vary). Read relevant sections for foundational understanding. 03:04:12 03:04:37
2. **Class Material**: Review poverty section (27 pages total, but focus on starting part covering World Bank). Specifically study:

- What poverty lines are.

3. Contributions from committees: Rangarajan (rural/urban baskets), Tendulkar (adjusted calorie norms).
   This ensures clarity when building on HCES tomorrow. +3

Complete homework fully—no shortcuts—as it directly supports next session's expert committees, World Bank line, and MPI. 03:03:55 03:05:26

Class 2

Poverty Measurement Framework Post-Independence

Post-independence, the Government of India needed to measure poverty to track progress in uplifting the poor, requiring a consistent normative standard (poverty line) for fair comparisons across time (temporal) and regions (spatial). Without consistency, comparisons like "20% poor in UP vs 25% in Bengal" become unfair if different standards are used. +4 The Planning Commission (expert body) defined the poverty line (PL) as the value of a basket of goods/services enabling "basic dignity" (normative opinion varying by expert). The National Sample Survey Office (NSSO) conducted Household Consumption Expenditure (HCE) surveys on household samples, applying the PL to data to estimate poverty headcount (people below PL). 00:54 01:26 03:49 04:20

Process:

1. Planning Commission sets PL (basket value).
2. NSSO collects HCE data via surveys.
3. Compare household expenditure (CE) to PL: CE < PL → poor; CE ≥ PL → non-poor. +3

Key Mechanism: PL is normative (expert opinion on basic dignity), not fixed fact—any expert-constructed standard works if consistent for comparisons. All historical PLs are "equally good" if expert-derived. +3

PL **change** (new basket/concept) vs **update** (same basket, adjust value for current prices via inflation to reflect market changes like inflation). Use current prices for relevant measurement—e.g., 1985 PL at 1985 prices (current) or equivalent 1979 prices (constant). +9

Updating Methods:

- **Market Visits** (pre-Lakdawala): List basket items, visit relevant markets yearly, collect prices → biased by *place* (which market?) and *time* (seasonal prices, e.g., mangoes cheap in summer). +7

- **Inflation Index** (Lakdawala onward): Use Consumer Price Index (CPI) from Central Statistics Office (CSO)—visits multiple markets/times, unbiased. E.g., 8% inflation → update PL by 8%. +6

Dandekar and Rath Poverty Line (1971)

Basis of all subsequent PLs—not a formal committee but foundational study. **Primarily calorie/energy-based**: Poverty = inability to obtain minimum energy for basic dignity (normative: 2250 calories/person/day, national average). Basket: Primarily food (energy source) + non-food (housing, clothing, transport)—not purely food. +11

Mechanism: Construct basket yielding 2250 cal + non-food; value at market prices = PL (e.g., hypothetical ₹100/person/day buys basket). If household affords basket → non-poor. Forms core of later PLs. 15:18 15:48

Component	Focus	Rationale
Food	Primary (80%+), yields 2250 cal/person/day	Energy for basic dignity; sources vary by habits
Non-Food	Secondary (housing, clothing, transport)	Essential but no energy yield

Why Energy-Based? Every person needs minimum energy; below it → no basic dignity. Unit: Calories (common, not SI joules). 11:18 11:48

YK Alagiri Poverty Line (1979)

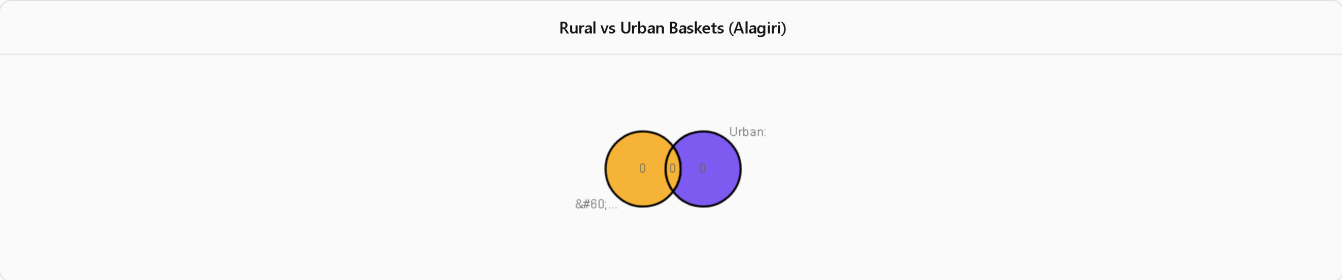
First Planning Commission committee (chair: YK Alagiri). Builds on D&R: Accepts calorie basis but differentiates rural/urban needs/patterns. Rural: 2400 cal/person/day; Urban: 2100 cal/person/day (rural labor-intensive → higher needs). +4

Key Changes:

- Separate rural/urban PL baskets (different composition/scale reflecting consumption patterns, e.g., more milk rural, eggs urban). +5

- Prices from *relevant markets* (rural markets for rural basket). E.g., rural basket value = ₹90/person/day; urban = ₹110. +4

Why? National average ignores rural/urban differences in energy needs/sources/prices. Not rejecting D&R—refining for specificity. +3



Lakdawala Poverty Line (1993)

Extends Alagiri: State-specific PLs (rural/urban within states). Accepts 2400/2100 cal but notes state-wise consumption differences (e.g., Haryana grains vs Bengal fish/rice). Constructs state-specific baskets; prices from state markets. +11

Second Contribution: Update PL via inflation index (CPI), not market visits (avoids biases). +9

Impact: Slightly higher non-food (housing/clothing/transport) vs prior → higher PL value → more poor (e.g., 30% → 35%). Delayed acceptance (1993 report → 1997) due to political controversy (higher estimates embarrass govt). +9

All prior (D&R, Alagiri, Lakdawala): **Purely normative** (expert opinion), **primarily calorie-based** (food dominant, expanding non-food). +3

Tendulkar Poverty Line (2009)

Committee (2005, report 2009; chair: Suresh Tendulkar, Delhi Univ.). Still **calorie-based** (national 2250 cal, rejects state-specific as inconvenient despite accuracy—middle path). +3

Key Innovation: Expands non-food significantly (healthcare, education, drinking water, sanitation—reasonable normative amounts).

Why? Prior assumed govt provides these (subsidized hospitals/schools → poor spend ~0). Reality (from HCES data): Poor spend out-of-pocket (e.g., private pharmacy when govt lacks drugs). Added normative expenses for realism. +23

Data Improvement: Introduced **Mixed Recall Period (MRP)** in HCES (vs Uniform Recall Period—URP: 30 days all items, inaccurate). MRP: Short (7 days) for high-frequency (onion/milk); long (365 days) for low-frequency (shoes/clothes). More accurate responses. +20 Influenced by Angus Deaton (MIT, Nobel 2015 for data accuracy). +4 Remains **official PL**. 01:32:28 01:32:56

Recall Period	Items	Accuracy Rationale
URP (Pre-Tendulkar)	30 days (uniform all)	Inaccurate for freq/extreme items 02:51:13
MRP (Tendulkar)	7/30/365 days (mixed)	Matches consumption frequency 02:52:10
MMRP (Rangarajan)	7/30/365 days (modified mixed)	Further refined 02:53:38

Rangarajan Poverty Line (2014)

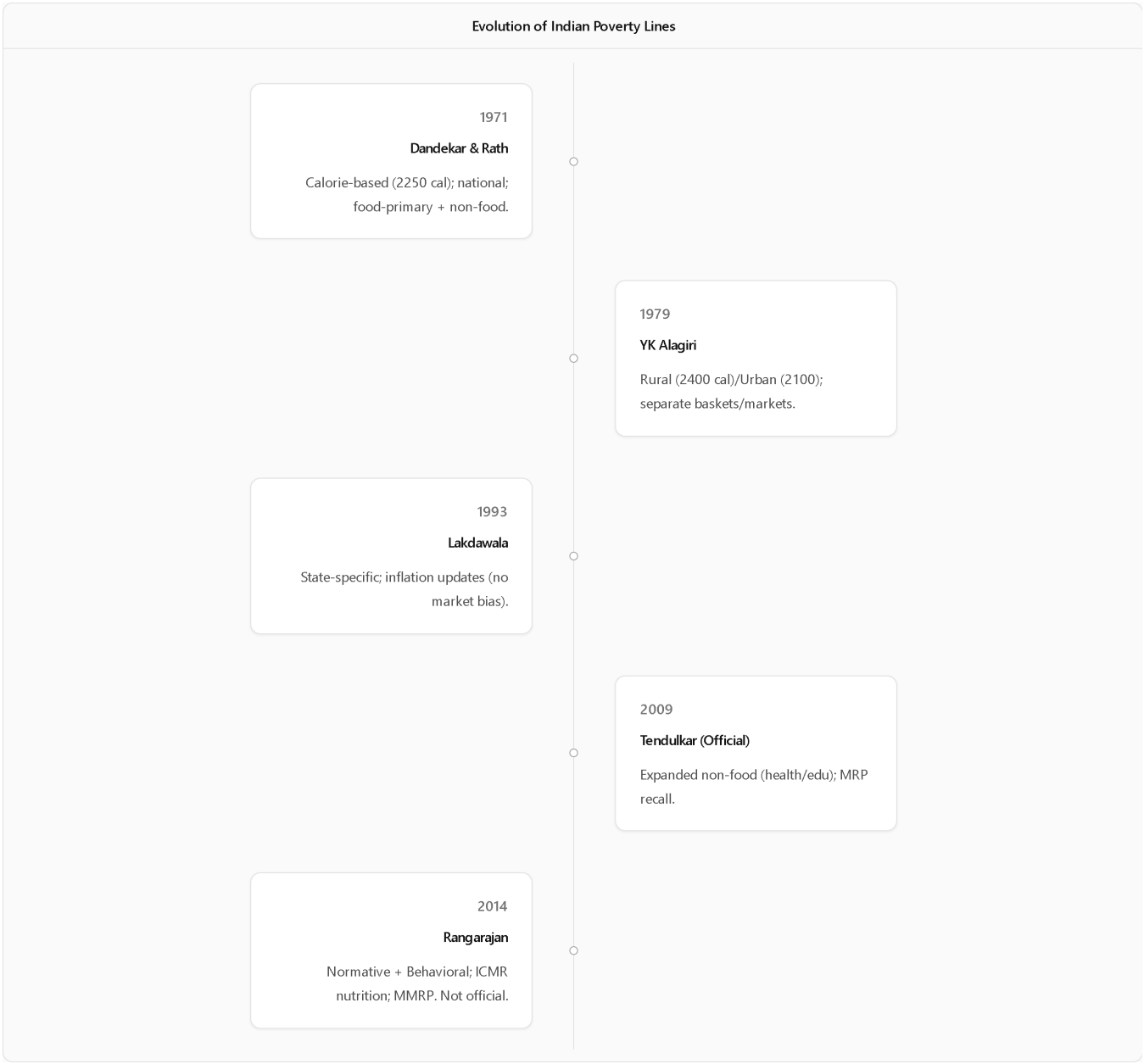
Committee report (2012 partial, 2014 full)—**not accepted officially** (Tendulkar preferred for simplicity). **Radically different**: **Normative + Behavioral** (positive/factual: actual poor/middle spending from HCES, e.g., 45th-55th percentile). +9

Normative: Expert opinion—food (calories + fat/protein per ICMR age/sex guidelines, household-specific); non-food (housing, clothing, transport, health/edu/water/sanitation). +4

Behavioral: Observed spending on non-essentials (alcohol/tobacco/entertainment) + extras on necessities (e.g., actual health ₹1200 vs normative ₹1000 → add ₹200). +8

Why Add Behavioral? Pure normative misclassifies: Household CE ₹11k > normative PL ₹10k (non-poor), but only ₹9k on necessities (skimping, poor). Behavioral raises PL to ₹12k (normative ₹10k + behavioral ₹2k) → CE < PL → correctly poor. Vice versa avoids over-classifying improving households as poor. +30

Food: More scientific (nutrition, not just calories). **Data**: MMRP. Higher PL value. Rejected not for higher estimates/politics (exists publicly), but complexity/wrong classifications (e.g., classifies improving non-poor as poor). Govt uses Tendulkar mainly. +7



Summary Differences:

PL	Basis	Key Feature	Update Method	Data Method
D&R (1971)	Calorie (2250)	National basket 10:48	Market visits 50:37	URP
Alagiri (1979)	Calorie (2400/2100)	Rural/urban split 20:12	Market visits 51:06	URP
Lakdawala (1993)	Calorie	State-specific; inflation update 30:03 01:01:18	CPI 57:58	URP
Tendulkar (2009)	Calorie	Non-food expansion (health/edu) 01:25:22	CPI	MRP 02:53:08
Rangarajan (2014)	Nutrition (ICMR)	Normative + behavioral 02:01:48	CPI	MMRP 02:53:38

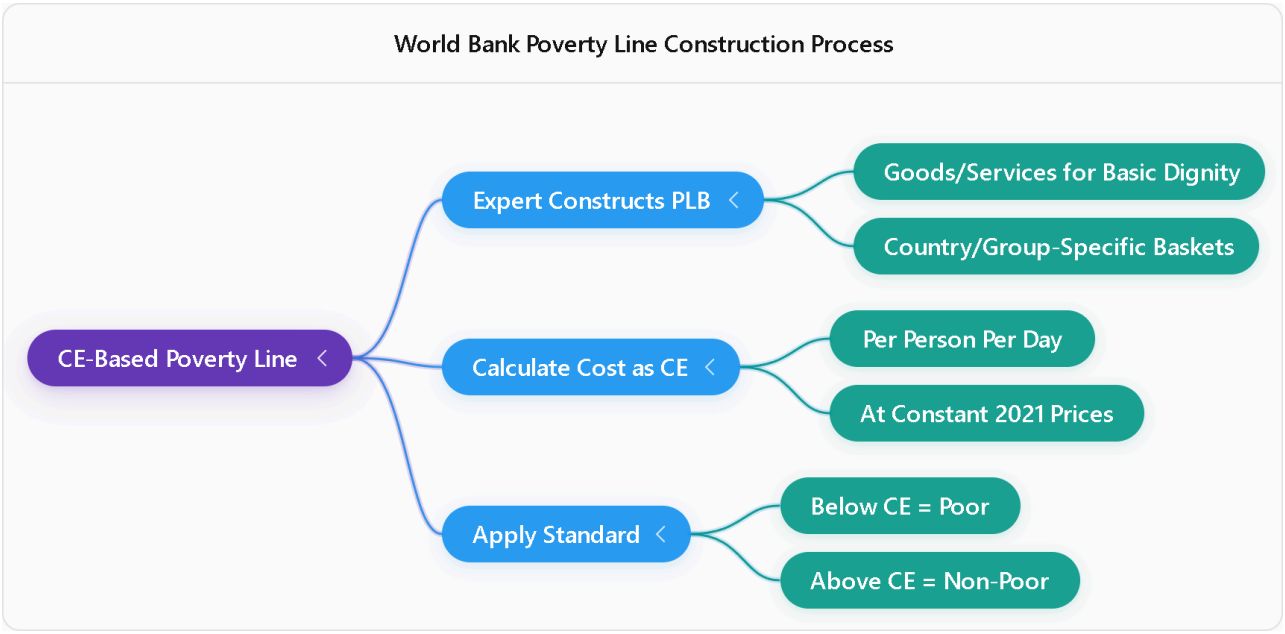
Next: World Bank PL, Multidimensional Poverty Index (MPI), India's poverty reduction progress. 02:57:28

World Bank and Its Role in Poverty Measurement

The World Bank provides loans to countries like India, Bangladesh, Pakistan, and Sri Lanka for developmental purposes, such as building drinking water facilities in Chhattisgarh or rural roads, health interventions, or education programs. With limited resources, it must prioritize lending based on the extent of poverty, making it inherently involved in poverty measurement to determine which countries need more support, lower interest rates, or priority funding. Its stated objective is to eliminate extreme poverty and achieve equitable wealth distribution globally. Poverty lines from committees like Tendulkar or Rangarajan in India are less universally used; instead, World Bank's poverty lines are almost universally accepted worldwide, including in Pakistan and Bangladesh.

Construction of World Bank's Poverty Lines

World Bank's poverty lines are constructed like India's: experts create a Poverty Line Basket (PLB) of goods and services necessary for basic dignity, calculate its cost as consumption expenditure (CE), and set that as the poverty line. Anyone unable to afford this CE per person per day is poor; otherwise, non-poor. This is a CE-based poverty line, identical conceptually to India's. However, basic dignity varies by society (e.g., India vs. China, America, Japan), so baskets differ by country, but the normative idea remains: inability to afford the local basic dignity basket defines poverty. Poverty lines are reported at constant 2021 prices (updated periodically for consistency, like shifting from 1979 to 1980 prices due to inflation while keeping real value equivalent).



Country Classifications by GNI per Capita

World Bank groups ~200 countries into four categories based on Gross National Income (GNI) per capita (average income per person, studied later in GDP topics):

- Low-Income Countries (LIC): Below ~$1,200.
- Low-Middle-Income Countries (LMIC): ~ $1,200–$6,000 (India at ~$3,000; China approaching High-Middle).
- High-Middle-Income Countries (HMIC): ~ $6,000–$12,000.
- High-Income Countries (HIC): Above ~$12,000.

Boundaries are approximate, dynamic, and revised regularly—do not memorize exact numbers. Group-specific poverty lines are set for each.

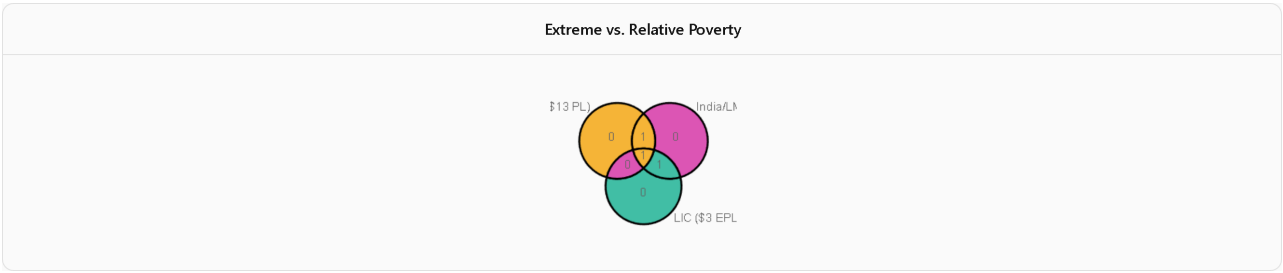
Income Group	Approx. GNI pc Threshold	Example Countries	India's Position
LIC	< $1,200	Zimbabwe, Congo	-
LMIC	$1,200 – 6,000	India (~$3,000)	LMIC
HMIC	$6,000 – 12,000	China	-
HIC	> $12,000	USA, Japan	-

Group-Specific Poverty Lines and Extreme Poverty Line (EPL)

Poverty lines (per person per day CE at 2021 prices, approximate—do not memorize exact):

- LIC: $3 (EPL/International Poverty Line - IPL).
- LMIC: $5.
- HMIC: $8.2.
- HIC: $13.

EPL ($3 for LIC$) identifies "extreme poverty" : someone poor at this level is poor not just in their country but even in the poorest countries (e.g., 2/day in USA = poor everywhere; $4/day in India = poor in India but not poor in LIC$). Higher lines capture relative poverty (e.g., 11/day poor in USA but rich in Congo).



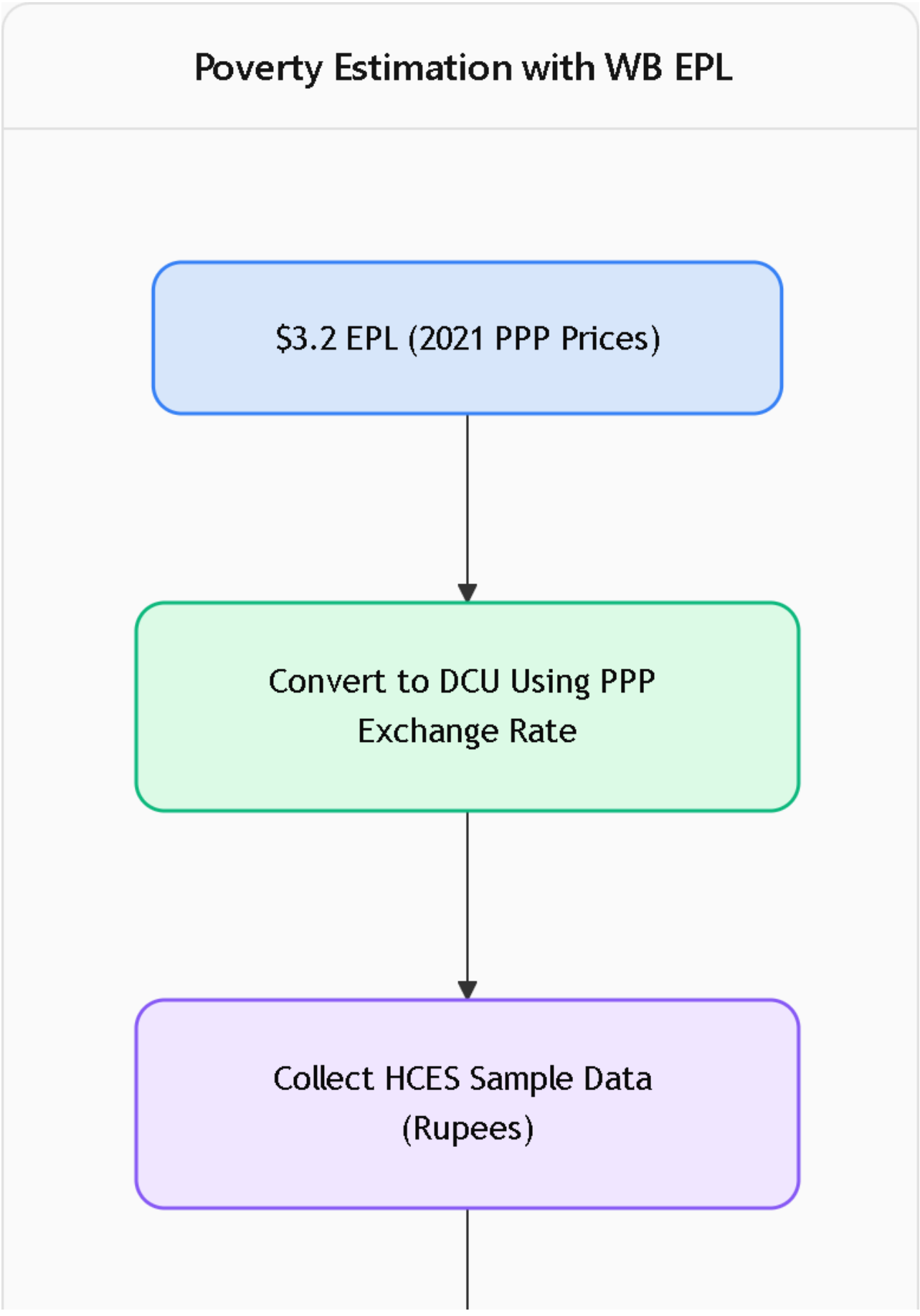
EPL's Role in Global Developmental Goals

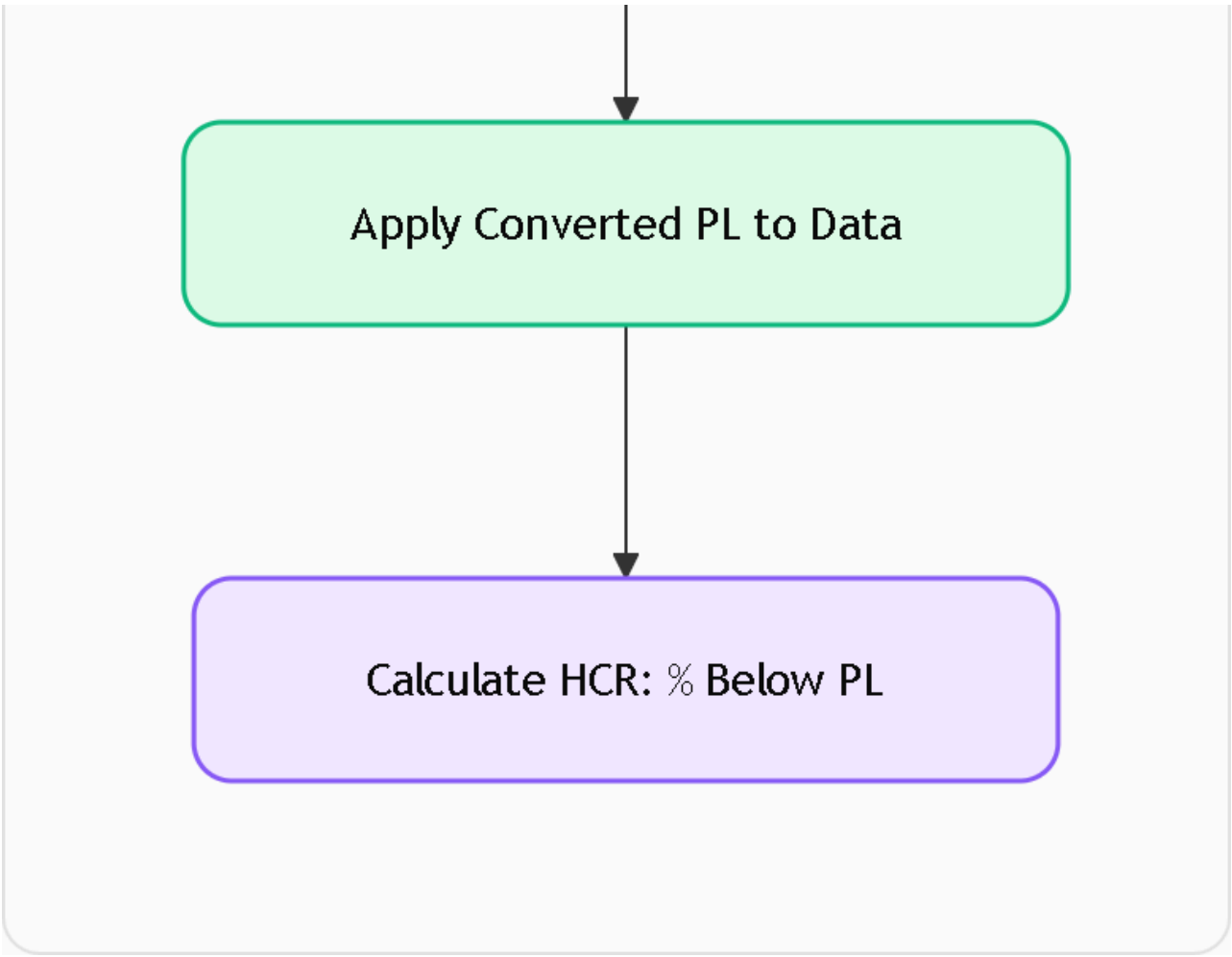
EPL forms the basis of worldwide developmental goals, prioritizing elimination of extreme poverty (poorest first) over milder poverty. Key example: Sustainable Development Goals (SDGs)—17 goals with 169 targets adopted by UN/UNDP in 2015 for 2015–2030 (e.g., health: reduce infant/maternal mortality, 80% vaccination; education goals).
SDG 1.1: Eliminate extreme poverty (EPL basis)—priority for all countries (India, China, USA).
Know SDGs for exams (environment, governance papers); they structure answers well.

Converting World Bank Poverty Line to Domestic Currency Using PPP

To estimate poverty: (1) Standard (e.g., $3.2 EPL), (2) Sample data (e.g., HCES in rupees), (3) Relevant data (CE), (4) Apply standard for Head Count Ratio (HCR/poverty ratio). Data in Domestic Currency Unit (DCU, e.g., rupees); standard in dollars—convert using Purchasing Power Parity (PPP) exchange rate, not market exchange rate.

Process Flow:


Poverty Estimation with WB EPL
$3.2 EPL (2021 PPP Prices)
Convert to DCU Using PPP Exchange Rate
Collect HCES Sample Data (Rupees)



Purchasing Power Parity (PPP) Explained

Market exchange rate: e.g., $1 = ₹90 (for travel/spending dollars abroad). PPP exchange rate equates purchasing power across places (same good/service costs differ due to living standards/demand-supply).

Mechanism: Same good (e.g., 1kg apples: ₹200 Delhi = $5USA) \rightarrow Purchasingpowerof₹200(Delhi) = 5$ (USA) → 1
$PP = ₹40PP.iPhone$: ₹$1.5LIndia = 1,000$ USA → 1
$PP = ₹150PP.Basket(middle - classlifestyle$: ₹$50,000/monthIndia = 2,500$/month USA) → Average PPP rate ~₹20/$1.

Standards of living explain price differences: Higher in Delhi/Rajinder Nagar (richer areas) vs. Panipat/Bihar → Goods/services cost more to maintain living standards.
Reverse: Equate purchasing power (₹200 Delhi buys 1kg apples = ₹120 Panipat). PPP applies domestically/internationally for fair comparisons (basket, not dollars, matters for poverty).

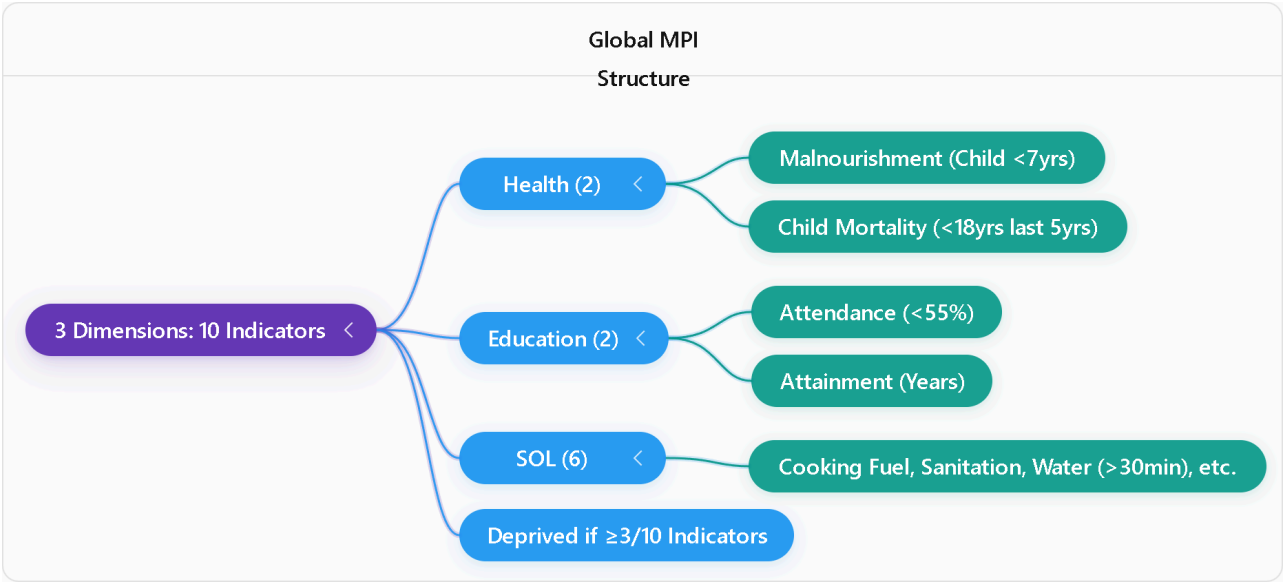
Why PPP, not market rate? Poverty measures affording a basket (apples ₹100 India ≠ $5 cash), not buying dollars.

Multidimensional Poverty Index (MPI)

Well-being: Anything improving life (income, health, education, sanitation, security, women empowerment, R&D, voting). Poverty: Pronounced deprivation across well-being aspects (not just income).

Conventional CE-based PLs (Tendulkar/Rangarajan) are multidimensional (include food, health, education, water, etc.) but measure deprivation via affordability (monetize aspects: "Can you spend X on health?"). MPI measures explicitly (accessibility: "Do you have health access?" not "Can you afford?"). Example: ₹50k/month expenditure (affordable) but 30km walk for water/50km to health center = deprived.

Standard Global MPI: By Oxford Poverty & Human Development Initiative (OPHI) → UNDP (publishes Global MPI Report). 3 dimensions (Health, Education, Standard of Living - SOL), 10 indicators (Health:2, Education:2, SOL:6), each with deprivation criteria. Household poor if deprived on ≥3/10 indicators. NITI Aayog's India MPI: 12 indicators (adds 2). Do not memorize all—understand via examples (e.g., malnourishment: child <7yrs stunted/wasted; mortality: child <18yrs died last 5yrs; attendance: school <55%; water: >30min walk round-trip).



Estimation: Sample households → Collect indicator data → Apply criteria → Count deprivations → ≥3 = multidimensionally poor.

Recap of India's Poverty Lines

- **Dandekar-Rath (OG):** Calorie-based (2,400 rural/2,100 urban/day) + minimal non-food.
- **YK:** Rural-urban split, state-specific baskets.
- **Lakdawala:** State-specific CPI updates, place/time-of-visit bias correction, increased non-food.
- **Tendulkar (Official):** Added private health/education spend (from HCES data).
- **Rangarajan:** Normative + behavioral (real spending patterns, added alcohol/tobacco). Uniform recall periods now: 7/30 days/1 year (HCES).

India's Progress on Poverty Reduction

Progress: Decline in HCR over time (1951 → 1990 → 2010; obvious but pace matters: rapid/medium/slow?). Avoid opinions without data/reasoning—back with facts (expert vs. non-expert). Fair comparisons require consistent standards (e.g., Lakdawala 1993:40% vs. Tendulkar 2009:37% unfair; same PL across years fair). Numbers/pace detailed next class.

Fair Comparison Example:

Year	Lakdawala PL HCR	Tendulkar PL HCR (Consistent)
1993	40%	~55% (hypothetical)
2009	~35%	37%

Class 4

World Bank and Multidimensional Poverty Lines Recap

World Bank measures poverty using consumption expenditure (CE)-based poverty lines, specified per person per day at 2021 prices, varying by country income groups: low-income (extreme poverty line, EPL ~3.2), lower-middle-income (LMIC ~3.65), upper-middle-income (UMIC ~6.85), and high-income. EPL ($3.2) is converted to domestic currency (e.g., rupees) using Purchasing Power Parity (PPP) exchange rates, where equivalent purchasing power across currencies is equated (e.g., $5 in US buys 1kg apples like ₹100 in India). +6

Multidimensional Poverty Index (MPI) assesses explicit deprivations across dimensions (health, education, standard of living) rather than affordability of a basket. Proposed by Oxford Poverty & Human Development Initiative (OPHI), adopted by UNDP in annual Global MPI Report (10 indicators). India's NITI Aayog version adds maternal health (3 indicators) and bank account (1 indicator), totaling 12. +7

Aspect	Consumption-Based (World Bank/Tendulkar)	Multidimensional (MPI)
Basis	Ability to afford minimum expenditure	Explicit deprivations (e.g., no school attendance) 09:10 09:36
Data Source	Household Consumption Expenditure Survey (HCES) 05:38	National Family Health Survey (NFHS) 01:53:35 01:54:03
Dimensions	Monetary (food/non-food)	Health, education, living standards 10:31

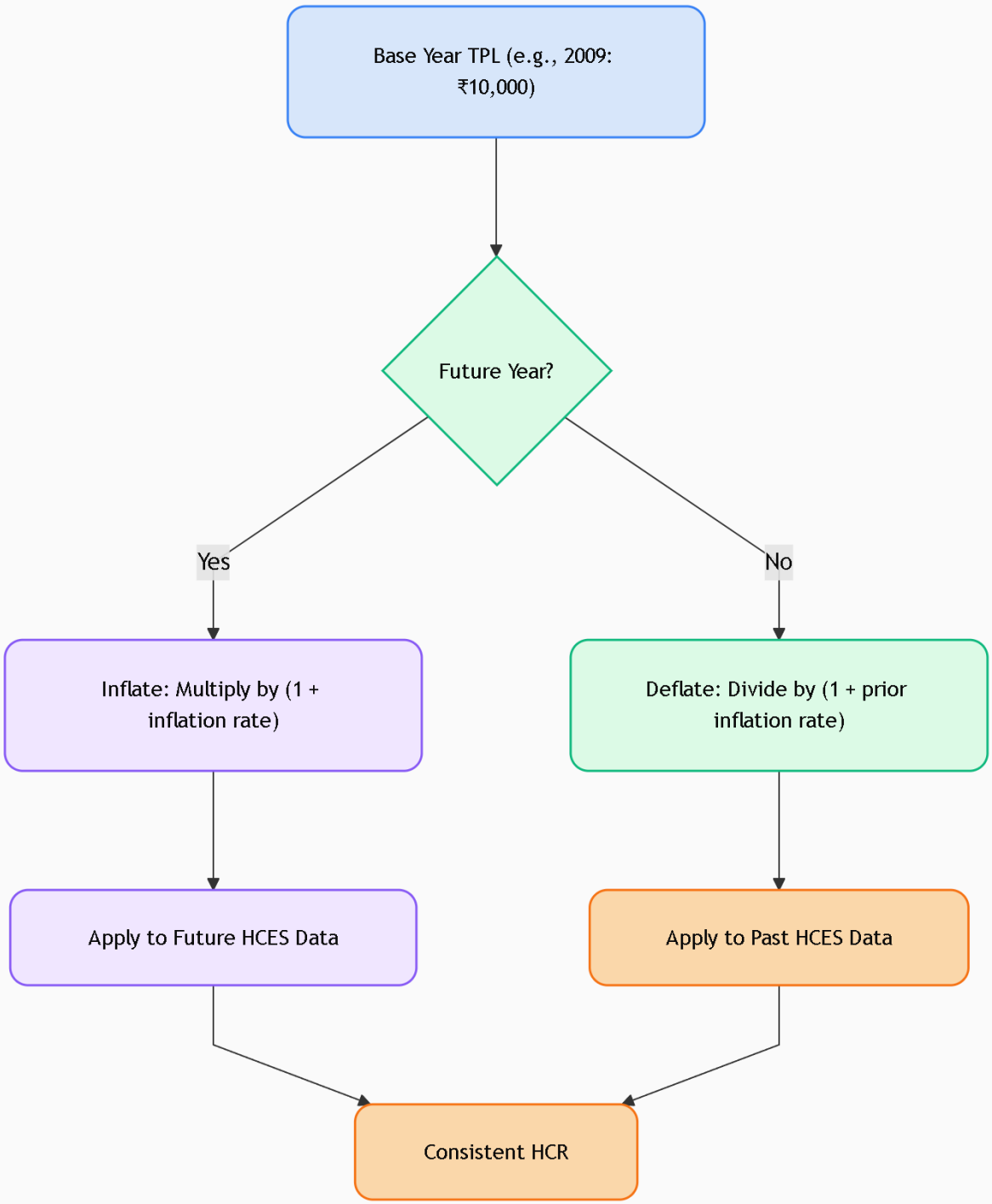
Need for Consistent Poverty Lines in Trend Analysis

Poverty trends require consistent standards across time; changing lines (e.g., Lakdawala 1993 ~40% poor vs. Tendulkar 2009 ~45% on same data) misrepresents progress. Fair comparison: Apply one line (e.g., Tendulkar Poverty Line, TPL) to all HCES data after updating for inflation. +4

- **Example Mismatch**: 1993 Lakdawala on 1993 data: 40% poor. 2009 Tendulkar on 2009 data: 45% poor → Cannot claim increase without consistency. 13:30

- **Solution**: Inflate/deflate TPL value using annual inflation (e.g., 2009 TPL ₹10,000; 10% inflation → 2010: ₹11,000 = 10000×1.1). Deflate backward (2009 ₹10,000 at 10% prior inflation → 2008: $10000/1.1 \approx$ ₹9091). +14

Updating Poverty Line for Consistency



Updated lines ensure same real purchasing power, allowing comparable Headcount Ratio (HCR = % below line). +11

Complexities in Back-Calculating Historical Poverty Lines

Deflating TPL basket value (e.g., 2009 ₹10,000 → 1993 ~₹4,000 via chained inflation) is mathematically sound but ignores basket evolution: 2009 items (e.g., processed foods) absent in 1993/1951, reducing relevance further back in time. Solved via assumptions (not detailed here). Purpose: Appreciate academic complexity beyond exams. +24

- **Relevance Decline**: Distant years → Fewer basket items available (e.g., atta vs. wheat in modern baskets). +3
- **Process**: Chain deflations (e.g., 2009 → 2008 (÷1.1), 2008 → 2007 (÷1.04)) yield equivalent values, but basket mismatch persists. 35:13 35:40

India's Poverty Trends Using Tendulkar Poverty Line

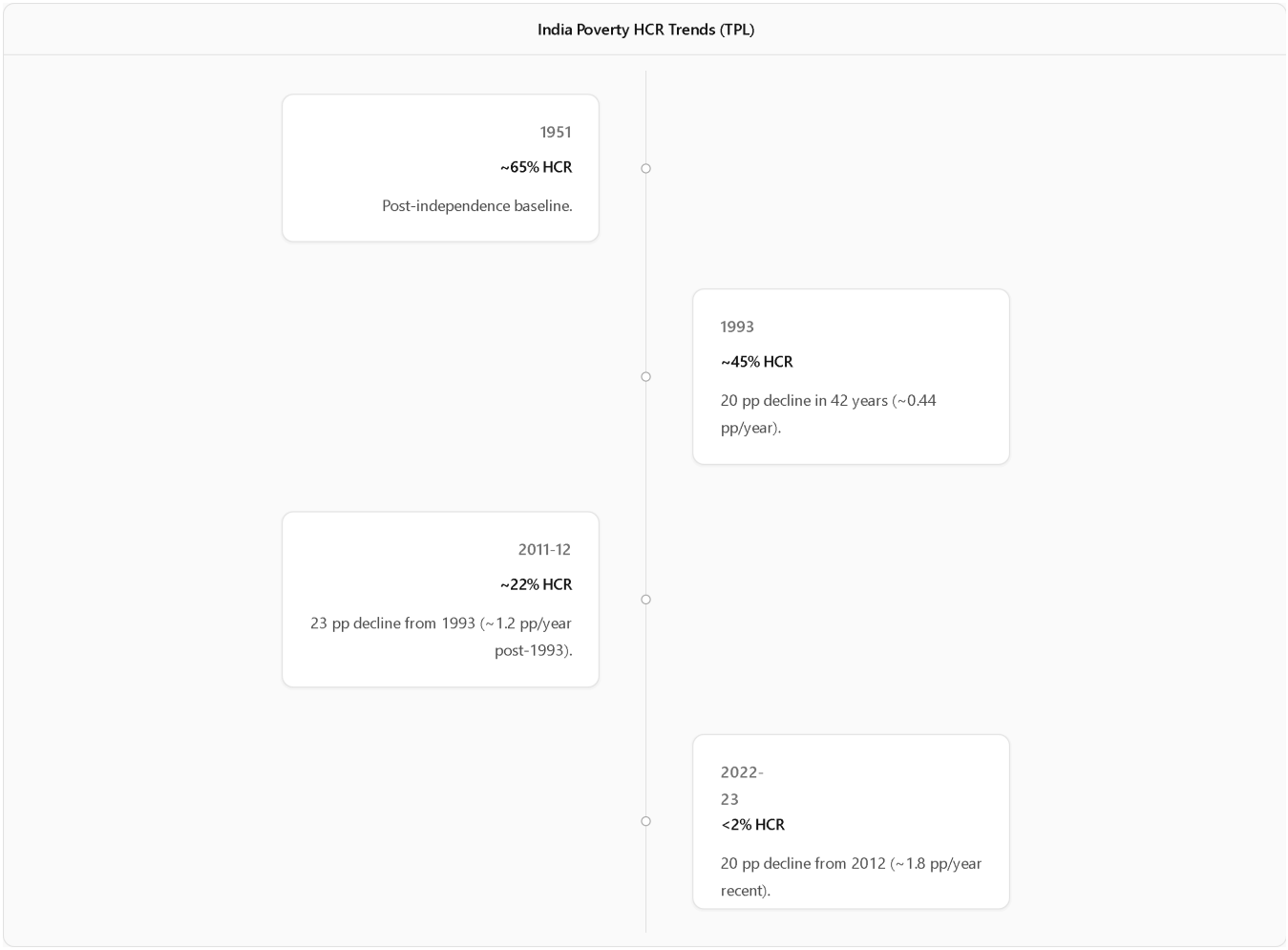
Using consistent TPL on HCES:

Year	HCR (%)	Notes +9
1951	~65	Consensus estimate; post-independence 44:10
1993	~45	Lakdawala era, TPL back-calculated 44:36
2009-10	~28	TPL base 54:36
2011-12	~22	Last pre-2022 HCES 55:06
2022-23	<2	Latest HCES 01:11:13

Decline: 1951-1993 (42 years): 20 pp (65→45) → ~0.44 pp/year. 1993-2012 (19 years): 23 pp (45→22) → ~1.2 pp/year. 2012-2023 (11 years): 20 pp (22→2) → ~1.8 pp/year. +15

Percentage Points (pp) vs. % Change:

- 65%→45%: 20 pp decline (not 31% as $(65-45)/65 \approx 31\%$; use pp for HCR). +10
- Average annual: Total pp / years (e.g., 20/45 ≈0.44 pp/year). 51:40 52:09



Phases of Poverty Reduction Linked to Economic Growth

Pre-1990s/2000s (Slow Phase): ~0.44 pp/year decline despite growth ~3.5%/year → Few jobs, slow poverty fall. +6

Post-2000s (Rapid Phase): >1 pp/year (recently ~2 pp) with growth ~6.5%/year (double pre-phase) → More output/jobs/incomes → Faster poverty reduction. +12

Mechanism:

- Growth = ↑ economic output (e.g., 100→110 chairs =10% growth). +3
- ↑ Output → More employment → ↑ Incomes → ↓ Poverty. Faster growth → More jobs → Faster ↓ HCR. +5

India: Tremendous recent strides (pace tripled/quadrupled post-2000). 01:13:10

World Bank Estimates Confirm Rapid Progress

World Bank (WDR 2015): 2012 official 22% vs. WB EPL (~$1.90/2011 prices, close to TPL) ~14% → India underestimates progress. Projections (if pace holds): 2018 ~8%, 2023 ~5%, 2025 ~1% (near elimination). +12

Updated EPL: $2.15 (2017 prices) → $3.2 (2021 prices). Current HCR: ~0.9% ($1.90 old), ~5% ($3.2 new), ~22% (LMIC $3.65). India no longer has world's most poor (ceded to Nigeria ~2018 due to pop+HCR). +13

Graphs (material): India lags early China/Vietnam (faster growth), but recent rapid decline. +5

Multidimensional Poverty Trends (NFHS Data)

MPI-HCR (deprived in ≥33% of 10-12 indicators):

Survey	Year	MPI-HCR (%)	Decline Notes +6
NFHS-3	2005-06	~54	Baseline 01:56:19
NFHS-4	2015-16	~27	27 pp (50%) in 10 years 01:57:14
NFHS-5	2019-21	~14	13 pp (~48%) in 5 years 01:58:07

Halving twice (fastest globally); stricter standard → Higher HCR than CE (~2%), but rapid progress key. NFHS: Comprehensive (stunting, vaccination + MPI data), costlier, less frequent. +11

Expectation: MPI > CE-HCR (stricter; e.g., school non-attendance flags deprivation despite affordability). +5

Population Impact on Absolute vs. Relative Poverty

% Decline (HCR) ≠ Absolute # poor (pop effect):

- 1951: 65% of ~361M = ~235M poor.
- 1993: 45% of ~890M = ~400M poor (↑ absolute despite ↓ %; pop growth ~2%/year > 0.44 pp/year decline). +9

Absolute ↓ when HCR fall > pop rise (post-1993).

SECC and Beneficiary Identification Committees

Schemes (e.g., PMAY housing, pensions, PDS food, Ayushman Bharat health) use independent criteria (not poverty lines):

- Housing: Non-pucca house.
- Pension: Unorganized sector worker.
- PDS: Low income/assets (no car/gold/land).
- Health: Expanded to unorganized + seniors (70+). +13

Problem: Deserving (e.g., e-rickshaw driver) prove eligibility per scheme → Effort/bribes/time loss → Exclusion. +9

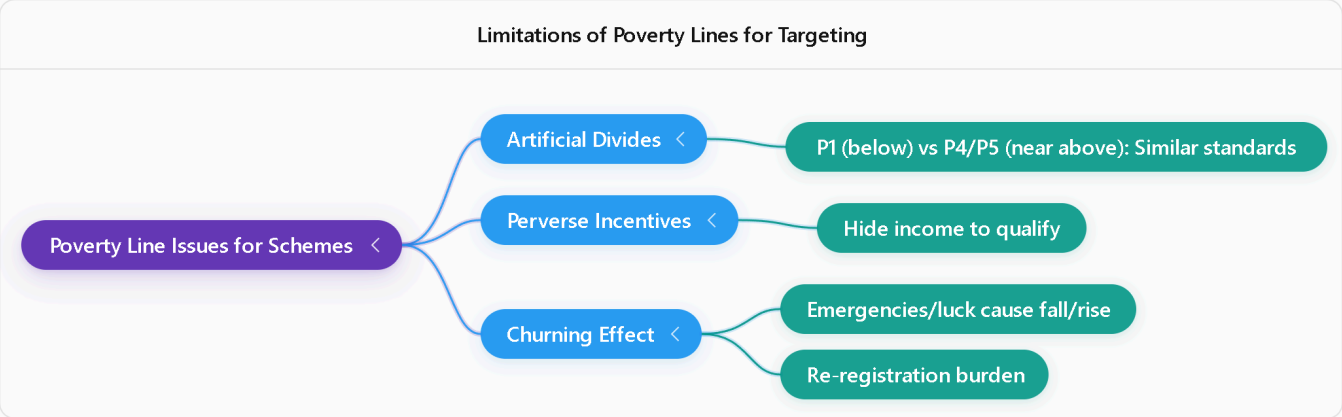
Solution: Hashim/Saxena Committees → SECC (2011): Common deprivation criteria (e.g., no pucca house, manual scavenging) for auto-beneficiary lists across schemes. +6

Why Poverty Lines Unsuitable for Schemes: Churning and Inequity

Poverty line (normative/academic) creates artificial divides:

- P1 (₹8k, 2k below), P4 (₹11k, 1k above), P5 (₹12k, 2k above): Similar living standards → Unfair denial to P4/P5. +9
- Incentive: P4 hides income to qualify. 02:36:22 02:36:49
- **Churning**: Fluctuations (e.g., medical emergency drops P4 below; lottery lifts P1 above) → Constant re-registration. Progress = More rising than falling. +8

Use "poor + vulnerable" via deprivation (not strict line). +5



Depth (Intensity) of Poverty

HCR (e.g., 5%) ignores variation below line. Depth: How poor are the poor? (Average distance/effort to escape).

- **Poverty Gap (PG)**: Average shortfall = $(2000 + 5000 + 8000)/3 = 5000$. +6
- **Squared PG (Sen Index)**: Weights deeper poor (effort exponential): $\sqrt{(2000^2 + 5000^2 + 8000^2)/3} = \sqrt{30} \approx 5500$ (P3 4x effort vs. P1). +12

Deeper poor (P3) need impossibly more to escape vs. near-poor (P1). Analog: Well depths vary; HCR= # in well, depth= average/farther depths. +6

Poverty lines normative (rise with incomes/aspirations; e.g., 1951 ₹10/day →0% poor absurd today). +7